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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 1.

SAN FRANCISCO, CAL., NOVEMBER 7, 1902.

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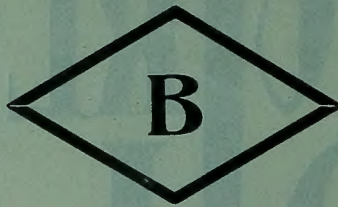
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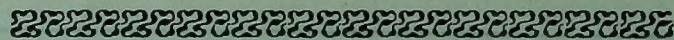




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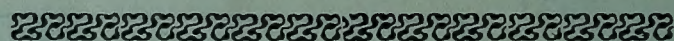
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# PACIFIC OIL REPORTER

VOL. 4. No. 1.

SAN FRANCISCO, CAL., FRIDAY, NOVEMBER 7, 1902.

PRICE, TEN CENTS.

## GENERAL W. H. H. HART.

### He Is Reported to Have Succeeded in Land- ing His Oil Enterprise.

### Several Companies Organized and Money Raised for the Purpose of Constructing Pipe-Lines, Tanks, Steamers and to Build Up Foreign Trade.

General W. H. H. Hart has not returned yet from New York, where an intended business trip of a few weeks has lengthened into a stay of nearly four months. General Hart's mission was two-fold, the first being to perfect plans for the establishment of an immense iron-ore reduction plant, the ore to be obtained from an immense mountainous deposit in Madera county, to which a railroad was to be constructed.

The second enterprise was the consolidation of a number of producing oil companies, the product of which was to be largely used for smelting the ore, which process would require a very large supply of oil daily. In addition to this, much oil would be refined by a new process, and much of it would be shipped abroad, or used on the Pacific coast for fuel purposes.

That General Hart has not entirely succeeded in accomplishing his mission is evidenced by his continued stay in the East. If his mission was accomplished he would return to San Francisco immediately, as his presence here on other matters is greatly desired.

That he has succeeded in a great measure is indicated by the statements of those interested with him in the success of his various gigantic schemes, and by his own words.

In a recent interview he is quoted as follows:

"The Oil Securities company has just been chartered under the laws of Arizona with a capitalization of \$20,000,000, divided into \$1 shares, fully paid and non-assessable. All the capital stock is placed in the treasury, and is divided as follows: \$10,000,000 common, \$5,000,000 first preferred, \$5,000,000 second preferred. The company is organized along the lines of the Northern Securities company and is to be a holding company for oil companies in any part of the United States. The stock would have been issued in \$100 shares but, as most of the companies to be absorbed have shares with a par value of \$1, it was deemed simplest to make this stock of the same par value. The \$5,000,000 of first preferred is sold at par. Interest on it is guaranteed at 6 per cent from January 1, 1903, and all of it is underwritten. The second preferred bears 6 per cent cumulative interest, is to be issued in exchange for the stock of the companies absorbed, and no properties will be taken in unless they are producing or have developed sufficient oil to pay 6 per cent on all stock issued for the same. The \$10,000,000 of common stock is held in reserve for the purchase of other territory and future development.

#### BIG PIPE-LINE PROJECT.

"In connection with the Oil Securities company another company to build a pipe-line has been organized with a capital of \$5,000,000. The pipe-line

is to extend along the east and west sides of the San Joaquin valley and run to deep water. This company will issue \$5,000,000 6 per cent 20 year bonds to build the lines. An agreement has been made by a syndicate of capitalists to take the bonds at a price that is private. The Oil Securities company is to sign a contract to ship all its oil production through these pipe-lines for the next twenty years, and soon as that contract is signed the entire capital stock of the

coast of 1,200,000 barrels for foreign shipment annually for twenty-one years. This represents about half of our production. We have a shipping rate of \$2.40 per ton for refined and \$2 per ton for crude to China and all ports in the Pacific nigher to San Francisco.

#### PROPERTIES TO BE TAKEN IN.

"The properties so far arranged for that will be taken into the Oil Securities company consist of 1,200 acres in the Kern River district of California, 16,000 acres on the west side, including holdings in the Sunset, Midway and McKittrick fields, 640 acres in the Coalinga district, and 12,000 acres in Alaska. The production developed at present on these properties is 200,000 barrels per month. "The stock and bonds of the various corporations are being taken by New York, California and English capitalists. I know several of the people who are backing the proposition, and to the best of my knowledge Mr. Morgan is not interested. The main offices of the company will be in New York and San Francisco. There is sufficient market for the half of our product, which is not already practically contracted for in the foreign trade, on the Pacific coast. Taking into account the industries there that will use petroleum instead of coal if they can get a uniform crude, the present production

holders of the Western Union and from one of the intending purchasers. In case the matter is correctly reported and a sale takes place, the transaction will be the largest ever known in that county and one of the biggest deals in the history of southern California.

The wells are located upon the Carreaga ranch in the Los Alamos valley. There are about ten wells under pumps, each producing something like 225 barrels of oil per day. The territory is proved in the most thorough way, and it is probable that no well will be sunk within a long distance of the present wells that will not prove remunerative. The market for the oil produced is excellent and the present company has provided itself with pipe-lines and storage tanks. The cost of developing the field has been borne by comparatively few men, who have invested something like \$200,000. The wells range in depth from 1,500 to 1,900 feet.

That there is a deep interest in the northern part of Santa Barbara county is to be seen in the number of people visiting it with the purpose of obtaining leases upon what they believe to be rich territory contiguous to the Western Union field. Mr. Treadwell, the well-known operator of the Kern field, has just paid a visit to the territory around the Western Union property, and it is thought that he made his visit to expert the field for E. H. Harriman. Frank Garbutt, identified with the Union Oil company of California, has leased several pieces in the north of the county and has purchased the Hobbs tanks. It is stated that \$90 per acre was the price of this land. One of the important pieces credited to Mr. Garbutt as leased to him is the Hartnell rancho here.

#### TO ADVANCE PRICES.

Buyer Raises Price from Ten to Fifteen Cents.

One of the largest independent producers in the Kern River field has lately been offered 15 cents per barrel for all the oil it can produce over and above the amount demanded by its existing contracts. The noticeable feature of this offer is this, that last July the same company was offered 10 cents by the same firm.

The advance is not great when looked at in the light of the early opinions, but it is, nevertheless, a substantial and gratifying increase. It discloses two facts: One, that there is a decided tendency toward better prices; the other, that the forces which have kept oil down are either losing their hold upon the market or have secured the results sought in the movement to depress rates.

On all sides it is stated that the "feeling is better." Confidence seems about to be restored and the wild scramble to get rid of the product for fear that no sale ever could be made, is at an end. Producers are both better established and are recovering from the folly of letting go at ruinous rates. The wisdom of refraining from giving good oil away has again gained the ascendancy.—Bakersfield Californian.

### California's Oil and Asphalt Production.

The following table shows the amount and value of California's oil and asphalt production from the years 1887 to 1901 inclusive, as compiled from the bulletin recently issued by State Mineralogist Lewis E. Aubray. The figures are those of Charles G. Yale, the statistician of the United States Mint.

YEAR.	OIL.			ASPHALT.		
	Barrels.	Value.	Value per barrel.	Tons.	Value.	Value per ton.
1887....	678,572	\$1,357,144	\$2.00	4,000	\$16,000	\$4.00
1888....	690,333	1,380,666	2.00	3,100	39,500	12.74
1889....	303,220	368,048	1.21	3,000	30,000	10.00
1890....	307,360	384,200	1.25	3,000	30,000	10.00
1891....	323,600	401,264	1.24	4,000	40,000	10.00
1892....	385,049	561,333	1.45	7,550	75,500	10.00
1893....	470,179	608,092	1.29	9,150	161,250	17.62
1894....	783,078	1,064,521	1.35	11,698	233,800	19.98
1895....	1,245,339	1,000,235	.88	25,525	170,500	6.67
1896....	1,257,780	1,180,793	.93	20,914	362,590	17.24
1897....	1,911,569	1,918,269	1.00	22,697	404,350	13.40
1898....	2,249,088	2,376,420	1.05	25,690	482,175	18.77
1899....	2,677,875	2,660,793	.99	15,060	308,130	20.45
1900....	4,329,950	4,152,928	.98	12,575	253,950	20.19
1901....	7,910,315	\$2,961,102	\$.37	21,634	\$413,219	\$14.47
Totals.	25,343,307	\$22,375,808	\$1.88	189,593	\$2,920,964	\$15.41
1902*...	12,500,000	\$2,500,000	\$0.20	26,000	\$338,000	\$13.00

\* Estimated. † Average price.

Pipe-Line company is to be turned over to the Oil Securities company. The fixed rate to be charged for each barrel of oil handled by the pipe-line, based on present production, is sufficient to pay the interest on the bonds and provide a sinking fund for the redemption of the bonds at the end of the twenty years as well as paying operating expenses. The excess of profits over that goes to the Oil Securities company, which will have the pipe lines free of debt at the end of twenty years.

"The third company organized by the Oil Securities company is the Refining company, capitalized at \$5,000,000, and divided into \$100 shares. Of the stock 49 percent is to go to the Oil Securities company, 2 per cent to be held in voting trust certificates, and 49 percent to patentees and to provide money to complete the plants. We have the best system of refining oils ever discovered. Under it we can refine oil at 25 percent of what the Standard Oil company has to pay.

"Our object is not to fight the Standard, but simply to take out the light oils so as to better crude petroleum for fuel purposes with the object of submitting crude oil residuum for coal in all parts of the world where it can successfully compete with coal. We will establish a uniform grade of crude that can be handled with absolute safety. For this fuel we have an assured market on the Pacific

is not sufficient to supply 40 percent of the demand."

From unofficial but reliable sources we have learned that John W. Gates, the Chicago and New York multi-millionaire, and Mr. Eddy, of Flint, Eddy & Co., the great ship-owners, are leaders in the combine.

#### WESTERN UNION OIL CO.

A Report Current that Its Property Has Been Sold.

A report has gained currency in Santa Barbara to the effect that the interests of the Western Union Oil company in the oil territory in the north of Santa Barbara county may change hands within a short time. It is stated upon what seems to be pretty good authority that an option was signed less than a week ago for the property indicated, and that the figure named in the option is close to \$1,750,000. The story is that the matter of the signing of this option came to the public through statements from both sides of the deal, from one of the



## IN HARD LINES.

### Misrepresentation Used to Bolster Up the Combine.

The Associated Oil company is in hard lines.

The continued kicking of dissatisfied stockholders is becoming exceedingly bothersome. Instead of lessening, the dissatisfaction is increasing.

Apparently the Combine is making use of all kinds promises and misrepresentations in order to bolster itself up in the estimation of stockholders and allay the prevalent spirit of unrest.

On Monday morning the Examiner had the following, presumably furnished from the office of the Combine:

The Union Trust company has agreed to float a loan of \$5,000,000 on behalf of the Associated Oil companies. The bonds are to run for twenty years at 5 per cent per annum. This fuel oil syndicate was organized within the past two years and is said to control 80 per cent of the wells in the Kern River district and 90 per cent of the oil properties in the McKittrick section. Joseph Chanslor of Los Angeles is president and W. S. Porter of this city manager of the property. A. J. Hechtman, Frank H. Back and other prominent capitalists are interested in the syndicate.

Neither the Hellmans, who are to float the loan, nor Manager W. S. Porter of the company will discuss the matter. Other people in the oil syndicate, however, state that most of the borrowed money will be used in building tank steamers and in erecting storage reservoirs in Honolulu, Seattle, Tacoma, Portland and other places to which oil shipments are to be made. The syndicate at one time contemplated the construction of a pipe-line either north to a point on the bay of San Francisco or west to Port Harford on San Luis Obispo bay. Any scheme of this character has practically been abandoned and use will be made of the Standard Oil company's pipe-line, which will soon be completed from Kern county to Point Richmond.

The Standard oil people operate on this coast under the name of the Pacific Coast Oil company and it is the latter which owns the pipe-line mentioned. There is plenty of ground for believing the Associated Oil companies and the Standard people are to work hand in glove in exploiting the shipment of oil in tank steamers and its sale in all countries tributary to the Pacific Ocean ports.

There is not a word of truth in the above.

The bonds are not yet printed.

The Combine does not control 50 per cent of the product of the Kern River and the McKittrick fields. Its claim of 80 and 90 per cent is absurdly false.

The Union Trust company has not agreed to float the bonds, and it is extremely improbable if any reputable concern will agree to float them or even try to float them on the ground that the bonds are a good investment.

That the money, if raised, will be used for tank steamers to and storage at Honolulu, Tacoma, and elsewhere is equally absurd. The Hawaiian Islands have bought their oil for years to come, and the Standard already has secured a foothold at Tacoma and other northern points that nothing can dislodge.

The worst feature in this batch of misrepresentations is the statement that the Associated will make use of the Standard's pipe-line from Bakersfield to Point Richmond.

The Associated has no more idea of being able to use the Standard's pipe-line than the devil has of tooting Gabriel's horn.

The Combine has secured contracts for the delivery of, some say as high as, 20,000,000 barrels of crude oil in the next five years,

the average price at the wells being about 20 cents or less.

These contracts have been secured by bidding against the Standard, and the only way the Combine can make any money is to secure a very material reduction in transportation rates. This they cannot get from the railroads, and it is not likely the Standard will assist those in business who are competing with them by the methods employed by the Associated.

As a matter of fact both the Standard and the Union exult over every big contract the Combine makes, as that only brings the finish of the Combine nearer and makes their wind-up a matter of less time.

If the Combine has sold 20,000,000 barrels of oil to be delivered in five years that means that it has practically mortgaged its property already to the amount of \$4,000,000.

It also means that when the Combine will be taxing the oil resources of its property to the utmost in order to fulfill these contracts, and is selling oil at 20 cents a barrel, the other companies will be having a ready sale for their oil at 50 cents or more a barrel.

It further means that if the Combine throws up its hands in despair, and is unable to fulfill its contracts, that it will have people to deal with, like the Spreckles, who will make it pretty warm for some of the Combine's officials in a financial way.

The Associated has not obtained the right to use the Standard's line, nor will it obtain that right.

If the Combine does not furnish its promised oil it will have a lot of trouble on its hands.

It cannot furnish that promised oil at a profit unless it gets cheaper transportation.

It cannot float its bonds when they are offered for sale.

Unless it gets several million dollars it cannot build a pipe-line and sufficient tankage.

It looks very much as if the Combine was "up against it," and all because it knocked the price of oil down to 10 cents in order to "force the producers in."

### A MODERN IDEA.

#### The New Oil Carrier of the Standard Oil Co.

A new departure has been made in the construction of oil-carrying barge No. 93, recently built at Bath, Me., for the Standard Oil company. She has four hollow steel masts, while the foremast is somewhat larger in circumference than the others, being built to serve in the dual capacity of mast and smokestack. For this reason great caution was taken in stepping it, so as to prevent any accident at sea in a storm, and its connection with the boiler has been tested rigorously. The masts are all ninety-five feet in length.

The decks are of steel. The wheel-house is aft, while the pilot-house is forward, on the fore-castle deck. Both are elegantly equipped for the convenience of their occupants. The latter is finished in hard wood and furnished in the style of a rich man's library. A steam steering gear has been placed on the craft, so that the work of the helmsman will be easy.

The cabin is between the main

and lower decks, and it is finished beautifully. Here are the quarters of the captain, mates, engineer and cook, while the kitchen will occupy a compartment by itself, and the dining-room another. There are also several bath-rooms in the cabin. Under the forward fore-castle deck are the quarters for the crew, consisting of six iron berths and lockers, with bath-rooms adjoining. The pump-room is aft and the boiler-room forward.

For machinery the craft has a Scotch boiler of twenty-eight tons, 11x11 feet. There are two furnaces and two condensers, also a complete electric plant, with generators and switchboard. She has a patent towing machine, also patent towing bits, by which no strain comes on the vessel, while she is being towed when the hawser suddenly tightens, as it often does. There is a steam hoisting engine forward for the cargoes.

As the barge is designed especially for the Oriental oil carrying trade she is equipped with sixteen oil tanks with a capacity of 1,450,000 gallons. She is also constructed so as to carry oil for fuel, and has large tanks on both sides of her hull capable of carrying 20,000 gallons.

### New Coal Field.

The Randsburg Coal and Power company, which is operating the the coal mine five miles from Garlock, has made excellent progress and is down 145 feet with a 4½-foot ledge of what is claimed to be the best coal ever discovered in

the State. The ledge is widening and it is expected that it will develop into a 12 or 15-foot ledge.

The company in question is preparing to generate power on an extensive scale, and already it has three dynamos at the mine and three at Garlock. The poles for wires are also in place for the entire distance.

The coal, it is said, will make an excellent quality of coke, and if this be true the deposit in connection with the iron deposits in the San Fmedio company will prove invaluable.

### Oil Displaces Coal.

Oil is to be used as a fuel in the big refineries of the Standard Oil Company in New York, in the yards in Green Point and at Long Island City. Oil fuel will be supplied to the furnaces underneath the stills by a device invented by Herbert M. Pratt, one of the millionaire stockholders of the company. For years the use of oil has been contemplated, but now, for the first time, the system will be given a test on a large scale. It is anticipated that thousands of gallons of oil will be consumed daily in this manner if the device proves successful. The use of oil is brought about by the shortage of coal.

### To Whom It May Concern.

Boulder, Colo., Oct. 6, 1902.

This is to certify that O. H. Jones, the oil locator of Los Angeles, Cal., located a well for the Otero Oil and Gas company in the Boulder, Colo., oil fields in May, 1902; that the same was drilled in to oil September 1, at a depth of 1,765 feet; that since September 3 we have been pumping 100 barrels per day. This was not near any other producing well.

F. J. CRETCHER, Director.

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**OIL IN MEXICO.****The Mexican Petroleum Company to Expend Vast Sums.**

Development of Mexican oil properties is proceeding on a scale not fully understood in this country. Los Angeles capitalists are interested. E. L. Doheny, of Los Angeles, president of the Mexican Petroleum company, recently gave out a summary of the developments in progress by his company in Mexico, and which are expected to cost over half a million dollars. They are as follows:

Steel tankage, with a storage capacity of 4,000,000 gallons of oil, to cost \$94,000; the building of nine kilometers of standard gauge railroad, at a cost of \$90,000; warehouse supplies, \$90,000; an asphaltum refinery with a capacity of 1,200 barrels daily; an electric plant to supply light and power, to cost \$23,000; a coo-perage plant that will furnish 5,000 staves daily, at a cost of \$15,000; a machine shop complete in every particular and particularly adapted for the building of oil well machinery, and that will cost \$12,250; a blacksmith shop that will have a steam hammer and all other modern fittings for repairs as well as for new work and will cost \$6,000; a planing and saw-mill of the most modern pattern to cost \$6,500; an ice and cold storage plant to supply 2,500 pounds of ice daily, and 500 gallons of distilled water, and give 2,000 square feet of space for storing meats, fruits, vegetables, and other articles of food, for the use of the employees of the company, and to cost \$6,250, an air compressor, complete for handling building steel and working the drilling plant, will be put up at cost of \$10,833; buildings, including offices, stores, residences, and bunk-houses, to cost \$10,125. The company has just purchased in Texas a car load of mules with wagons and harness at a cost of \$8,475. The company has given out a contract for one million brick to be made on the company's property, ready for building purposes, at a cost of \$12,500. A pipeline for water, fourteen miles long, with four-inch pipe, will be laid, and will cost \$62,500. All these works are under way, or will be under way, as soon as the material reaches the ground, which must be very shortly, and will be put in operation at El Ebano.

**A BELT LINE.****Point Richmond to Have Adequate Railroad Facilities.**

William S. Tevis, H. C. Breeden, D. G. Scofield, C. E. Worden, E. S. Pillsbury and others have incor-

porated a company and are ready to begin building a belt railroad at Point Richmond, the present Santa Fe terminus in Contra Costa county. The belt-road will be about twenty miles long and W. S. Tevis is the official head of the company.

The Standard Oil company is completing a big refining plant in the Point Richmond district, and the pipe-line from Bakersfield will also have its terminus there. From its property, the Standard Oil company has a spur track out to the Santa Fe main line. The spur track also connects with a branch line the Southern Pacific has built into the Point Richmond district from San Pablo on its main line. Just north of the Standard Oil property, the Southern Pacific has eighty-seven acres which it will shortly convert into a big terminal.

The proposed belt-road will start from the Standard Oil company's end of the spur track and run in a semicircle as far north as San Pablo point. The route will be by way of Castro and Molate points. At the three points mentioned docks are to be constructed. The Southern Pacific and Standard Oil will have docks of their own.

The new belt-line will in no way interfere with a large system of freight tracks the Southern Pacific is to lay on its property in the near future.

**OIL ANALYSIS.****California Oils the Subject of Scientific Inquiry.**

The oils of California are receiving elaborate study from the department of chemistry of the University of California. The investigations deal with the chemical properties, economic possibilities, and relative qualities of petroleum from various fields, as compared with oils from other States and countries. Professor Edmond O'Neill spent last summer in the Texas oil fields, and he plans an early visit to the wonderful deposits at Baku and elsewhere in European Russia.

Many chemical discoveries have been made in the chemical laboratories at Berkeley. The smokeless powder used by the United States was the invention of W. C. Peyton, '87, a graduate of the college of chemistry. A valuable new explosive was recently devised by E. A. Starke, a former assistant in chemistry. It was an assistant in the chemical laboratory, Adolph Sommer, who invented lucol and viscol, paint and leather oils, which have come to be of much commercial importance.

Subscribe for the PACIFIC OIL REPORTER.

**A HOME-MADE BURNER.****Simple But Successful Use of Crude Oil as a Fuel.**

Benjamin F. Shaw, of Wilmington, Del., has installed a burner in his home with which he uses crude Texas oil as fuel. The burner is about two feet in circumference, with many outlets for the ignition of the oil. In a stable at the rear of Mr. Shaw's home the barrel of oil, containing about fifty gallons, is placed. It is connected with the burner by a pipe that conveys the liquid fuel. So far Mr. Shaw has experienced no annoyance from odors arising from the burning oil. Its general results are said to be as satisfactory as a coal fire, and it is much more economical. The barrel of oil costs less than four cents a gallon, and the burner consumes about half a gallon an hour. It is installed beneath a hot-water heater, which thoroughly heats the fifteen rooms in the house evenly and comfortably.

**In New Mexico.**

The O. K. Crude Oil company of Newport, R. I., has given notice of an increase of capital from \$1,000,000 to \$1,400,000 to purchase the property of the American Crude Oil company, consisting of 1,280 acres of oil land in Guadalupe county, New Mexico.

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If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

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# PACIFIC OIL REPORTER

Published Weekly  
The Oil Authority of the Pacific Coast.  
Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco

Telephone, Bush 176.  
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ONE YEAR .....\$2 50  
SIX MONTHS.....1 50  
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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY... NOVEMBER 7, 1902

With this number the PACIFIC OIL REPORTER  
**A New Volume** enters upon its fourth year.

This is the only oil journal published on the Pacific coast, and in fact is the only oil journal published this side of the Pennsylvania oil fields, the two others published on the Atlantic seaboard being the National Oil Reporter of New York, devoted principally to booming the sale of stocks of companies which have more or less the nature of fake schemes; the other oil journal being the Petroleum Gazette, of Pittsburgh, Pa., which is a monthly publication.

The PACIFIC OIL REPORTER commences its fourth year under most favorable auspices.

By careful attention to the progress of the development of the different oil fields on the Pacific coast this paper has become the source of authoritative information not only as to actual field work but as to the standing of various oil companies.

The circulation has increased until it is read in every state of the Union, and goes abroad to foreign countries where interest is being manifested by capitalists in the opportunities presented by the California oil industry for profitable investment.

The PACIFIC OIL REPORTER has its own complete printing plant which enables it to meet the peculiar wants of an oil journal and of the oil men especially as regards job printing, circular and prospectus work. On its shelves, carefully indexed, are maps and half-tone cuts of all the fields, showing the properties of all the large producing companies, and representing considerable capital and labor.

Our facilities for obtaining full and correct oil news are unsurpassed, and the increasing patron-

age given the paper is substantial evidence that our attempts to meet the requirements of the oil public are appreciated.

It is given out from authoritative sources that **A Big Mortgage** the Associated Oil companies have contracted to deliver twenty million barrels of oil within the next five years. The price is understood to be 20 cents a barrel, although it is strongly asserted that this quotation is too high.

Granting it to be correct the Associated has agreed to furnish twenty million barrels of crude oil in the next five years for the sum of four million dollars.

This means that it has in reality mortgaged its property for that amount, equal to the amount of the mortgage the Associated desires to float for the purpose of building pipe-lines, storage, etc.

While the Associated will be exhausting its oil supply the price of oil generally will be steadily advancing; and while this company will be taxing its resources to the utmost to supply this vast amount of crude oil at 20 cents, the other companies will be receiving at the lowest calculation 50 cents a barrel.

The prospect for future dividends to the stockholders of the Associated looks worse than ever. The officers however continue cheerfully to draw down \$90,000 in salaries.

The figures given in the table on the third page of this issue **Figures Teach a Lesson** ought to teach an important lesson to oil and asphalt producers.

Read the list of prevailing prices in oil and asphalt from 1887 down to 1902 and note how they have steadily lowered.

As regards oil the money received in 1902 for 12,500,000 barrels will not equal the amount received in 1899 for 2,677,875 barrels.

The conditions to-day are proportionately the same as they were then.

In 1899 the production was as much greater than the consumption as it is to-day. No railroads, steamship companies, or great manufacturing concerns were using oil. The supply was greater than the demand, just as it is now. Yet in 1899, when the production was not one-sixth what it is to-day the amount of money received for the oil by the producers was greater than that received in 1902.

1899—2,667,875 barrels.....\$2,660,793  
1902—12,500,000 barrels.....\$2,500,000

This is a nice contrast, isn't it? Whose fault is it?

Ask B. F. Brooks, the sales manager of the Associated Oil com-

panies, if he knows where the blame should rest.

In two years this rate will be required to produce at least 20,000,000 barrels of oil a year, and each year will see these requirements increased until the oil resources of the different California fields will be taxed to the utmost, just as they are to-day of the Eastern fields.

This senseless competition to sell oil at ruinously low figures should stop.

This oil that is now being offered at 20 cents and less is worth at the wells at least 50 cents.

The Standard knows it, and is buying up all the oil it can store. In the Kern River field alone the Standard has seventy-five tanks, holding over 3,000,000 barrels full of oil that has been offered the company, some of it as low as 10 cents.

Every barrel of that oil is to-day worth 50 cents.

The time will come, and that sooner than is expected, when our oil fields will be taxed to the utmost.

Keep your oil in the ground, rather than sell it at present rates. You are making money by holding it. In two years the value of oil will have trebled, and you will reap the benefit.

## EASTERN IGNORANCE.

**Willful or Ignorant Misrepresentations of Our Oil Industry.**

Dr. C. T. Deane, secretary of the California Petroleum Miner's Association, has received a letter from New Haven, Conn., asking if an enclosed editorial from a New Haven paper is true, and that the California railroad companies have decided to discontinue the use of oil as fuel.

The editorial is as follows:

"ANOTHER STORY.

"The worst wipe oil has received lately is in the statement that after making a test of oil as fuel on its passenger locomotives for ten months, the Southern Pacific railroad has decided to return to the use of bituminous coal, and its mines at Carbonado have received orders to begin shipping 25,000 tons a month. It is reported that oil was not a success on the passenger locomotives for

two reasons: One, that it deposited a coating on the flues, which had to be removed every day, or it kept the heat from the water, causing a great waste of fuel. The other was that the intense heat produced by the oil cracked and split the boiler sheets."

Dr. Deane, in reply to the letter, wrote the following:  
"San Francisco, Cal., Nov. 4, 1902.

"Mr. Geo. McKendrick,  
"Railroad Office Bldg.,  
"New Haven, Conn.

"My Dear Sir:  
"The slip enclosed by you and headed 'Another Story' is one issue of falsehoods from beginning to end. Crude fuel oil at one dollar a barrel (42 gallons) is equal to coal at three and a half dollars per ton. There are about 300 steam boilers using crude oil now in San Francisco. Most of them have been using it for two years past. I have not heard of a single one returning to coal, but on the contrary those using oil say they would not use coal again even if they could get it as cheap as oil. The Southern Pacific company is using oil now on about 200 locomotives and placing their tankage all along their lines for the purpose of using it exclusively. The Santa Fe Railroad is using oil exclusively on 206 of its 295 locomotives in service on its Pacific branch. The general manager writes me as follows: 'We propose to and in fact are at the present using oil fuel exclusively.' The railroads of California will use in the year 1903 between eight and nine million barrels of oil. I enclose you Bulletin No. 2 from this Association, which will inform you of the use of oil in marine boilers, as well as those on land. The article you quote is no doubt suggested by some of the coal barons of the East. We don't have to tell any lies about oil. It is the fuel of the 20th century, and in fifty years now we will look back on the use of coal as we do now on the use of a stage coach. It is more economical, cleaner and safer both for land and sea than coal. The above information is official.

"Yours very truly,  
"(Signed) C. T. DEANE,  
"Secretary."

## 'More Oil-Burners.

George J. Willey, general manager of the La Conner, Wash., Trading and Transportation company, announces that his company has decided to substitute oil for coal in generating power for the operation of its fleet of eight Puget sound steamers. A California oil company expects to put in tanks and supply stations in Seattle.

Bound Volumes  
of the

Pacific  
Oil  
Reporter

### MAY BE HAD AS FOLLOWS:

From Nov. 1, 1899, to Nov. 1, 1900.....\$6.00  
From Nov. 1, 1900, to Nov. 1, 1901..... 6.00  
From Nov. 1, 1901, to Nov. 1, 1902..... 5.00

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Editorial and Publishing Office  
318 Pine Street  
San Francisco, - Cal.



## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

Marcus Anderson of San Francisco has secured several oil claims on Cook Inlet, Alaska. He has commenced development work, and two weeks ago was able to secure a tub of crude oil of seemingly high grade. He shipped this oil by steamer to San Francisco, where it will be refined, for the purpose of showing just what grades of oil can be expected from the Cook Inlet fields. Anderson has offers of financial assistance from California, with which to develop his properties as soon as he is ready. This news is brought by R. C. Edmonds, who for four years has been mining on Cook Inlet. He says that oil in good quantities is being drawn from several wells in that section. He has been over large areas during the past four years, finding oil indications in nearly every locality. As far as they have been examined, the oil fields extend about thirty miles inland from Cook Inlet. Numerous locations have been made, but the development is in its infancy.

#### FRESNO.

It is reported on good authority that oil has been struck on the plains eight miles west of Huron. Many who are conversant with the character of the plains in that

locality have been predicting this for years. It looks as though prospecting for oil on the Huron plains will become quite general before long now.

#### KERN

At the Kern River oil fields there are now standing seventy-five huge tanks, having an average capacity of 35,000 barrels, filled with oil, erected and owned by the Standard Oil company alone.

The Union Oil company has let the contract for the excavation of a mammoth reservoir on the Claremont tract. This reservoir will be about 250 feet in diameter, with proportionate depth, and holds about 250,000 barrels.

The Peerless company has decided to renew development on a large scale, and is about to begin a large water well for the purposes of drilling. It is said that it has agreed to furnish the Standard a much greater quantity of oil than it is now supplying, and to secure the production will sink other wells.

H. W. McCray, who has been engaged for some weeks in securing transportation contracts for the proposed Midland Pacific, was in San Francisco last week, and reported an encouraging condition

of affairs, and a good prospect for the early construction of the road. It is reported that an early change will occur in the list of those who are promoting the enterprise.

The California Combined Oil company has lately acquired possession of the property formerly owned by the Gray Gander Oil company. The property is located on section 7, 28-28, not far distant from the Edison. The plans of the new company are to begin drilling as soon as the necessary preparations can be made and to complete one of the wells commenced by the Gray Gander.

The Pacific Oil company, with headquarters at Indianapolis, has acquired the interests of the Royal Sunset on section 35, 12-24. There are now two wells on the property, one of which has been drilled a year. The other was more recently finished, and has not been perforated, but flows from between the casings. It is presumed to be a better well than No. 1, which will do fifty barrels a day with the cap off. This property lies in a direct line between the big wells around the J. B. B., and those in the neighborhood of the Monarch.

#### LOS ANGELES.

The Whittier-Fillmore Oil company, operating on what is known as the Tubbs-Evans tract, has its well down 2,100 feet. For 200 feet the drill has been in oil sand, not all of which has been filled with oil. The company plans to go as deep as possible, as the sand is known to be both deep and rich.

#### ORANGE.

Well No. 65 on Puente lease has

been put on the pump, and is producing 150 barrels of oil a day.

Brea Canyon Oil company will commence another well soon.

Iowa Oil company, which recently resumed drilling on its land south of Olinda, has abandoned its well for good.

Fullerton Consolidated Oil company has sold its entire output to the Standard Oil company for five years and will sink several more wells at once.

Santa Fe company has commenced work on its thirty-ninth well. It is located on the hill back of Fullerton Oil company's properties and due south of No. 36, which is now drilling with every prospect of being a good producer.

Drilling is being prosecuted on the Iowa Oil company's land as fast as the hole can be put down, working day and night, with the very best indications. We fully expect one of the best wells in the Fullerton field, as there has not been an oil expert on the ground but who has pronounced the indications excellent; and now that we have attained the depth we have, with our present indications, we are more confident than ever.

"There is not a drop of oil for sale in the Fullerton oil field." This statement is made by a producer of this territory who declared that half of the operators were just able to keep up with the requirements of contracts, and that was all. The Standard has had agents in the field, and now practically takes care of the entire output of light oil, and would take more if it could get it. The Santa Fe, Fullerton Oil and sev-

# THE ELK HORN CONSOLIDATED OIL COMPANY

J. G. JURY, President

J. M. BOTTS, Vice-President

H. B. WORCESTER, Secretary and Treasurer

Capitalization, \$2,500,000 Present Selling Price of  
Par Value of Shares, \$1.00 Stock = = = = 30 Cents

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eral others have been selling to that corporation for some time.

Negotiations for valuable holdings in the Fullerton field are again pending. Although great secrecy is maintained, enough has leaked out to establish the fact that a syndicate backed by Los Angeles and Eastern capital is after some of the undeveloped property in this district. The syndicate, which is still working in the dark, has had experts examining certain corners of the field, and is satisfied that it has discovered a corner where very light oil could be developed. Through officers of the Fullerton Oil company some leases are said to have been closed, the property being in a corner of the territory that has always been regarded as out of the oil belt. Negotiations are now pending for additional territory, and when options have been obtained the syndicate will begin drilling.—Fullerton Tribune.

The ready market for light oil, especially the Fullerton product, has been the incentive for prospecting. At present the producers of refining oil are receiving from \$1.40 to \$1.70 a barrel from the Standard, and the market is practically unlimited. One of the most successful producers of the light gravity liquid in the State is the Santa Fe company, which is making a good thing out of the oil business. This company is producing thousands of barrels of light oil a month in the Fullerton district, and is selling part of the output to the Standard at close to \$1.50 a barrel. Part of the oil it is using in its engines is purchased in the Kern river

field at very near 20 cents a barrel. The Standard now has agents in this and other fields closing contracts for all of the light oil it can secure. It now takes about all of the product of the Santa Paula and Newhall fields, but is after more. With such a market, it is not surprising that capitalists will take risks in pioneering in sections where there are indications that light oil will be struck.—Fullerton Tribune.

#### SANTA BARBARA.

The liquid asphalt well of the Columbian Asphalt company, at Carpinteria, is past 1,100 feet and everything working smoothly.

The well of the Crescent Oil company, on Ortega hill, Summerland, is past 600 feet and work progressing satisfactorily. Drilling operations are necessarily slow on this well, as the formation stands at a very abrupt angle, and unceasing watchfulness and careful drilling are the price of a straight hole.

C. W. Ayers, a well-known oil operator of this city and Los Angeles, states that his chemists have discovered products in the crude oil of Summerland not before known to exist. What these are Mr. Ayers does not state, but below Summerland he has had twenty men at work for thirty days building a refinery, where these recently discovered products are to be refined. This new refinery will probably be ready by the middle of the month to handle 500 barrels per day. Later, probably by December 1, this capacity will be increased 50 per cent. The refinery is the property of the

Columbian Oil and Asphalt company.

#### SAN BENITO.

Everything is in readiness at the oil rig of the Ladd Oil company on the Croxon ranch, and operations will begin as soon as the drillers arrive and a day and night shift will be put on.

#### SAN LUIS OBISPO.

The two tanks to be erected at San Luis Obispo are to be located opposite the roundhouse in the hillside. Work on the excavations has been in progress for some time, but is not yet entirely completed. The height of each tank is completed at 30 feet, with a diameter of 115 feet, and will contain over a million gallons of fuel. To fill these large receptacles will require 330 carloads of oil.

#### SAN MATEO.

The Knapp refinery has now but one still in place with a capacity of 40 barrels of crude oil daily. As the main oil well from which the supply is at present derived is badly choked up, and will not be cleared out for some days while the tools are employed on a new well, the present capacity will not be immediately increased. It is the intention of Mr. Knapp to put in another still which will treble the present capacity of the refinery. As new wells are opened up, and the oil supply increases, the capacity of the refinery will be correspondingly increased.

#### STANISLAUS.

At an adjourned annual meeting of the stockholders of the Mt. Oso Oil company, held at Gray-

son last week, there were elected for directors for the ensuing year Messrs. A. Hewel, Fred Barch, Chas. Elfers, John Elfers, S. W. Howard, Ed. Brush and Mat. Weisser. The stockholders instructed the directors to collect from all delinquents, or in lieu of payment to accept surrender of stock; failing both, the delinquents are to be sued for the amounts due. It developed that 11 additional shares of stock have been subscribed for, representing \$3,280. The board of directors organized by electing Fred Barch, president, and A. Hewel, vice-president. J. R. McDonald, Jr., was elected Secretary and the First National Bank of Modesto, treasurer. The new well is down 600 feet, but the drill has been "lost" and "fishing" has been in progress for a fortnight. On Tuesday the prospects were favorable for recovering it. Failing, however, the driller will start a new well. He is to bore to a depth of 1,500 feet, if necessary, or no pay, and is to receive \$5,100 if he puts a well down to that depth. The well is in the Coast range.

#### TEHAMA.

It is understood that the Southern Pacific company will build another monster oil tank at Red Bluff by the side of the one now nearly finished, on the land just north of Brewery creek, the work to be commenced next spring. The two tanks they now have here will hold, the smaller one 1,260,000 and the large one 2,310,000 gallons. The third tank will be also of 55,000 barrel capacity, and the three will afford storage for nearly 6,000,000 gallons.

# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

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2. The advance to par of two stocks out of four will return in cash **225** percent on the investment.
3. The advance to par of three stocks out of four will return in cash **337** percent on the investment.
4. The advance to par of all four stocks will return in cash **450** percent on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies. All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

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The Big Four.....	The Price of Oil.....
Directors of The Oil Companies.....	Press Notes.....
Reports Upon The Property.....	Faithful Oil.....

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## BIG GAS ENGINES.

### America Backward in Gas Engine Development.

In a paper read before the engineering section of the British association at the recent meeting at Belfast, Mr. H. A. Humphrey traced the development of gas engines and the remarkable progress that has been made, especially within the last few years. Engines of 1,200 and 1,500 horse-power are already in use, but larger ones are now being constructed and certain manufacturers are prepared to build them up to 5,000 horse-power. Exclusive of engines of less than 200 horse-power, there have been so far supplied in Great Britain 17,600 horse-power of Crossley and Premium engines, while of the Continental manufacturers, the Koerting brothers, or their licensees, have built 32 with a total of 44,500 horse-power (averaging 1,390 horse-power per engine), the Societe, John Cockerill 59, with an aggregate of 32,950 horse-power, (averaging 558 horse-power), the Gasmotoren Fabrik Deutz, 51, with a total of 20,655 horse-power, and the Deutsche Kraftgas Gesellschaft, 28, giving 16,900 horse-power. America has been more backward in gas engine development, but the Westinghouse company has made engines of 1,500 horse-power, and is prepared to build them of 3,000 horse-power, either horizontal or vertical, while the Snow Steam Pump Works, which has only recently entered this field, has already put in successful use six engines of 1,000 horse-power each, and is now constructing two gas engine gas compressors of 4,000 horse-power each, the first of which is expected to be in operation in November, 1902, and the second in January, 1903. Mr. Humphrey described the principal types of gas engines, and discussed the lines upon which development is progressing.

### A New Under-Reamer.

The National Supply company of Los Angeles, Bakersfield and McKittrick, are bringing out a new under-reamer, called the National. This is the simplest under-reamer that has yet been devised, and a half dozen of them have been put in operation in the Los Angeles field, and a shipment of two was recently made to Mexico.

It may not be generally known that the National Supply company are the only concern on the Pacific coast dealing in oil well tools and supplies who control their own plant for the manufacture of drilling and fishing tools. Such is the case, however, and for this reason they are able to give better satisfaction to those in need of drilling or fishing tools than could possibly be the case if the tools had been ordered from the East. Send for a circular of their new under-reamer to 117 North Main street, Los Angeles, Cal.

### Made Quick Time.

The steamer Nevada, burning oil, arrived at Honolulu a day ahead of time on her last trip from San Francisco, making over 300 miles a day. She made the trip from San Francisco in seven days

and three hours, which is a good deal faster than any of her line have hitherto made it.

In a dispatch from Sydney, N. S. W., the correspondent of the Daily Mail says that the British tank steamer Clam, Captain Evans, belonging to the Shell Transport and Trading company, has arrived there from Batoum, Russia. The Clam uses oil for fuel, and she made a record voyage. The use of oil increased her speed by half a knot an hour. Her daily consumption was eighteen tons of oil, as against a former consumption of twenty-six tons of coal. The crew of the Clam is at present one-third smaller than it was when she burned coal.

### Difference in Profits.

The oil men say that if the Associated is up against it now, the present is nothing as compared to the pickle they will be in after the first of the year when their Spreckles' contracts commence. These require the delivery of oil at the rate of 700 barrels a day. Think of it! All this oil at 54 cents a barrel! Exhausting their oil supply at a profit of about 2 cents a barrel! The railroad gets 42 cents a barrel for hauling and its profit per day on the 700-barrel contract will be \$140 as against \$14 for the Associated.

If the Combine officers do not look out they will not be able to count up enough profits to pay themselves \$90,000 a year in salaries.

### Oil Trust in Asia.

The London Ironmonger announces the formation of an Asiatic petroleum trust with a capital of \$10,000,000. The new corporation comprises the Shell Transport and Trading company's tank fleet and Texas properties and the vessels and oriental wells belonging to the Royal Dutch Indian Petroleum company of Amsterdam. It is announced that the new combine will concern itself exclusively with the sale of oil in the far East and of benzine in Europe, operating under the name of the Asiatic Petroleum company of London.

### A New Departure.

Preparations have been made for fitting all the steamers of the Pacific Mail Steamship company to burn oil. Nine of the vessels are now in the trade between San Francisco and Panama, and three others are on the run to Asiatic ports. According to the plan it is proposed to establish oil supply stations at Panama, at Honolulu and at one of the Japanese ports. The station at Panama may be supplied from the wells in Peru and the one in the Orient, from Russia.

### The Deepest Well.

The deepest hole made by man in the United States is owned by the West Elizabeth Gas company in Allegheny county, Pa., where a total depth was obtained of 5,535 feet, considerably more than a mile. The temperature of this well was taken some time ago as follows: Five hundred feet from the surface, 57° Fahrenheit; 5,000 feet down, 120° Fahrenheit; at 5,400 feet, 127°.

## OIL-BURNING STEAMER.

### Liquid Fuel a Success on an Atlantic Liner.

For the first time in the history of Atlantic navigation a passenger liner has crossed the ocean with oil for fuel, under one of her boilers. The Red Star steamship Kensington, Captain J. B. Hill, accomplished this feat. The Kensington sailed from Antwerp on October 25 and reached her pier Tuesday evening, bringing 133 cabin and 666 steerage passengers.

Chief Engineer Perris reported to Supervising Engineer John Carnegie of the International Navigation company, that crude kerosene oil had been burned continuously instead of coal under the single-ended boiler of the ship. The test was apparently a success.

"Whether oil has affected the boiler, or tubes, we cannot tell," said Carnegie to-night, "as we have not yet made an inspection."

### Has Struck Oil.

Last Saturday morning word was received by the Pinal Oil and Development company from the well which the company is putting down a mile and a half north of the Western Union company's holdings in the Carreaga oil field, that there was eighty feet of oil in the well and that it was time to send down a case of champagne to the men at the well. When the well had reached a depth of 1,270 feet it was determined to continue it with eight-inch drive pipe, the

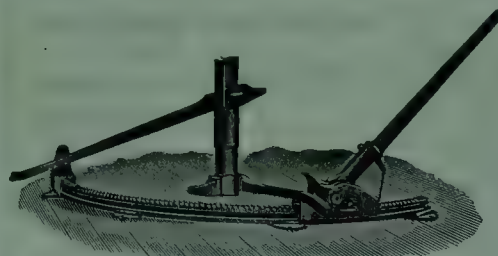
pipe used before having been eleven and five-eighths casing. During the few days that work was discontinued, awaiting the arrival of the eight-inch pipe, it was found on resuming operations that eighty feet of oil had accumulated in the well. The strike was a complete surprise as it was not known that oil sand had been reached. The oil is 21 gravity, which is the same as that found in the wells belonging to the Western Union Co. A further test was made at the Betteravia sugar factory which was most satisfactory. Drilling will proceed at once. When the oil sand is penetrated the exact nature of the find will be made known. The strike in this well demonstrates that the Carreaga field is larger than at first supposed.

### Scrippers Lose Again.

The Supreme Court of the District of Columbia has overruled a motion for a rehearing made by the Cosmos Exploration Company and the Riverside Oil Company of California, in their case against the Secretary of the Interior, involving large oil land interests in the Kern River district.

The company sought to have the courts declare these lands vacant and open to settlement. The court held that such action is discretionary with the Interior Department, and not subject to control by the court.

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**Los Angeles Stocks.**

Oil stocks continue to advance on the Los Angeles Stock Exchange and the volume of business apparently increases in proportion. During the past week thousands of shares of the better known oil stocks appeared on the market at prices slightly in advance of the closing quotations of a week ago. The most active traders have been Central, Columbia, Reed Crude and Union, although considerable trading was distributed among a number of the other listed oils. Central has remained about stationary at 60 cents, although no offerings were made at the close of the week's business at less than 62. During the early part of the week Columbia was traded in at 15 cents and later advanced to 15½, and closed strong at 16½, under brisk bidding at the end of the week's trading. Reed Crude registered 25 cents during the early trading, and made a strong finish at 25¼ at the close, many large blocks having changed hands. Union sold in quantity at \$55, coming in for a strong finish on Saturday at \$56.50 under the influence of active bidding.

Trading in the unlisted oils was sluggish, and few changes were made in the prices either way.

The decline of Verde King was one of the most notable features of the list of mining securities. This stock has been holding fairly firm at about 27 cents, sliding off to 20 cents toward the end of the week. Butte Lode advanced about a dollar a share, and exhibited a good demand at \$29.50, with none offered. Small blocks of Bisbee West have gone over the board at from 12 to 13 cents. Under the influence of favorable reports on recent development work Hudson Gold Mining company's stock was very active at 5 cents during the early days of the week, and advanced to 9 cents bid on Saturday.

Shares of the various banks continue to command such high premiums that little or no trading is possible.

The usual inactivity prevailed among the miscellaneous securities.

**A Transportation Co.**

The Union Transportation company corporation, allied with the Union Oil company, has incorporated in Los Angeles with a capital stock of \$3,000,000, divided into 30,000 shares, fully subscribed. The directors are Lyman Stewart, Frederick H. Rindge, W. L. Stewart, W. F. Botsford and J. S. Torrance, all of Los Angeles. Each of the directors owns one share of stock, the remainder being held by the Union Oil company.

**Pacific States Mining and Investment Company.**

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

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Stock issues underwritten on the American or London plan.

Correspondence solicited and careful attention paid to all inquiries.

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Send for sample copy of the "Pacific States Investor," an up-to-date financial paper.

Address for all information, Pacific States Mining & Investment Co., 324-326 Post St., San Francisco, Cal.

**New Use of Oil.**

Charles H. Kuenzel, of San Francisco, has invented a dry gas which he claims is a mixture of 15 per cent of crude oil with 85 per cent of air. The mixing is effected at a high temperature and by pressure and the resulting gas is dry and non-explosive. Refined oil is used in making this gas.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, November 5:

HANFORD.			
2 at \$90 00.....		\$ 180 00	
HOME OIL.			
500 at 2 80.....		1,400 00	
INDEPENDENCE.			
4 000 at 05.....		200 00	
1,500 at 04.....		60 00	
1,000 at 04 (C).....		40 00	
JUNCTION.			
1,100 at 10.....		110 00	
100 at 11.....		11 00	
MONTE CRISTO.			
200 at 1 10 (B 10).....		220 00	
900 at 1 07½ (B 30).....		967 50	
500 at 1 07½.....		537 50	
OCCIDENTAL OIL.			
1,000 at 13.....		130 00	
PEERLESS.			
50 at 8 25.....		412 50	
REED CRUDE.			
100 at 26.....		26 00	
100 at 27.....		27 00	
STERLING.			
500 at 1 55 (C).....		775 00	
100 at 1 55.....		155 00	
TWENTY-EIGHT.			
100 at 1 32½.....		132 50	

11,752 Shares Amount \$5,384.00

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TELEPHONE MAIN 1552.

**J. B. HILL**

Member Producers' Oil Exchange  
Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
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**Joseph L. King.**

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San Francisco, Cal.  
Member of San Francisco Merchants' Exchange and Producers' Oil Exchange.

**Joseph B. Toplitz**

STOCK BROKER  
Oil and Mining Stocks Bought and Sold.  
Telephone Bush 385, 330 PINE STREET  
San Francisco, Cal.  
Reference: California Safe Deposit and Trust Company, S. F.

**50 Percent****Annual Meeting.**

THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE FLASHLIGHT OIL COMPANY will be held at the office of the company, 1122 Guerrero street, San Francisco, on Wednesday, November 12, 1902, at 7 o'clock, P. M., for the purpose of electing a board of directors for the ensuing year and for the transaction of such other business, as may arise.  
F. R. TURTON,  
Secretary.

**JOSEPH B. TOPLITZ,**

MEMBER CALIFORNIA STOCK AND OIL EXCHANGE

MEMBER TONOPAH STOCK EXCHANGE

Telephone Bush 385

Bank Reference: California Safe Deposit & Trust Company, S. F.

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"Home," paying monthly dividends of 7½ cents per share.

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"United Tonopah"

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and other marketable and good and dividend-paying stocks.

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Tonopah Map

Price List

Write to the undersigned for information regarding Oil and Mining Stock Investments paying regular dividends, returning 10 percent to 24 percent per annum; also for suggestions as to the best speculative purchases. Correspondence invited. Address:

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Opinion on Oil Territory and Proper Location given before Drilling. Advice on Value of Stock, Oil Lands and Prospects . . .

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Best of References

Standard Rigs Furnished, Fishing Tools on hand. Contract Drilling for Oil . . . . .

Twenty-five Years Experience in California Fields . . .



## OIL FOR HAWAII.

The Matson Navigation Company Loads the Marion Chilcoot.

Another large enterprise is to be established on the Alameda side of the estuary. The Matson Navigation company has leased a dock from the Southern Pacific company near the shipyards and will erect a complete oil-loading plant on the property. The oil is to be shipped to Hawaii and other points. A vessel is being loaded with crude oil direct from the tank. Through a ten-inch pipe the oil is being forced into the hold. The plan is a new one, says the Alameda Encinal, and by means of it a vessel carrying 15,000 to 20,000 barrels of oil can be loaded within a day. The three-masted brigantine Marion Chilcoot, the vessel into which the oil is being run, is owned by the Matson Navigation company, Captain A. P. Nelson commanding. Attached to the vessel is a ten-inch canvas hose. This curves over the side of the boat and connects with the steel pipe leading to the tank. The pipe is so arranged that it can either be attached to the tank or to oil cars. The vessel has capacity of 18,000 barrels.

The Marion Chilcoot was formerly a sugar boat. She was only recently transformed into an oil carrier. The hull of the vessel is divided into twelve oil tanks and two cofferdams. Each tank is made of steel, and so separated from every other tank that, should the oil get afire in one compartment, it would not affect the oil in the other tanks. The oil, which is a high grade of crude oil from Kern county, will be taken to Honolulu to be used as fuel.

## SPINDLETOP.

### Facts and Figures About the Beaumont Field.

The United States Geological Survey says that only 280 Spindletop wells show a yield of oil sufficient to be considered of commercial importance. The oil is unsuited for the production of illuminating oil, and it is doubtful if it can be made to yield a good lubricating oil. Whether it can be successfully used in metallurgical processes is unsettled. Its value for asphalt and as a gas oil is undetermined.

The average maximum flow of 163 wells is from 10,000 to 12,000 barrels daily.

The value of well material, tanks, tank cars, pipe-lines, etc., is \$7,640,000.

From January 1, 1901 to May 1, 1902, the total production was 11,688,000.

On May 1, 1902, there were 52 abandoned wells, 240 producing wells, and 60 wells drilling.

### For Oiled Roads.

Another point in favor of oiled roads is demonstrated by the rains. A contrast is afforded in several parts of Santa Barbara and in every case the oiled road is in better condition during and after the rain than the road that has not been oiled. The water does not penetrate so deeply, the roadbed is not cut, and the sur-

face dries quickly. Roads that are traveled much are packed smooth and hard, and the rain seems to be an immediate benefit.

Altogether it may be said that the oiled street is satisfactory in all kinds of weather. It is dustless on dry or windy days and mudless on rainy days. The city will be justified in oiling other streets.

## Great Gas Well.

The greatest gas well ever struck in Pennsylvania is now sending into the air more than 20,000 cubic feet of gas every twenty-four hours. It is defying all efforts to bring it under control. The well is on the Peter Kerr farm, a short distance south of Worthington. The gas escaping, it is estimated, would supply a city of 10,000 inhabitants. In the eleven days that have elapsed since the sand was struck more than 220,000,000 cubic feet of gas it is believed, have gone to waste.

## Over 2,000.

The oil companies, good, bad and indifferent, incorporated in the United States during the present year will probably number over 2,000.

## NEARLY 200,000



## Smith-Premier Typewriters

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97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

The Smith Premier Typewriter is used exclusively by the Telegraph Department and the Sunset Freight Department of the Southern Pacific Railroad Company.

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Heald's Business College uses 32 Smith Premiers.

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School lands may be taken from 160 to 320 acres. Lands abound in all counties in State. They require no condition, as to residence on land or cultivation, and carry all minerals and deposits, only \$1.25 an acre. Easy terms. Fortunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and Cheapest Speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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## Southern Pacific Company

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### LYNET PETROLEUM CO

Capital.....\$150,000

50,000 shares at \$3.

Location—Fresno county.

Directors—Chas. L. Fair, president, Blitz W. Paxton, vice-pres't, Chas. A. Lee, treasurer, John C. McElroy, secretary.

Office—561 Parrott Building.

Tel.—South 184.

POTOMAC OIL COMPANY. Capital stock, \$2,850,000; Par value, \$1.00. Has 2,000 acres in Kern, Los Angeles and Summerland fields, with 30 producing wells. Officers and directors: P. V. Schermerhorn, president; C. H. Ritchie, vice-president; R. D. Robinson, secretary and treasurer; D. M. Schermerhorn and W. S. Morton. Principal office, Potomac building, Los Angeles, Cal. Tel. John 2281.

### STANDARD ROCK OIL COMPANY.

Capital.....\$500,000

Treasury stock.....\$300,000

Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.

Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.

Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Ensign.

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Its tests range from shallow water wells to a limit of 283 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

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## STAR DRILLING MACHINE COMPANY

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# 50 cents Asphaltum Refinery 50 cents

A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

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AGENTS WANTED in All Large Cities for the Sale of Our All Refined Asphaltum

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Manufacturers of

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 2.

SAN FRANCISCO, CAL., NOVEMBER 14, 1902.

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ALL STEEL, CAN BE MOVED EASILY, MOTIVE POWER EITHER STEAM  
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BUILT IN THREE SIZES, 500 ft., 1000 ft., 1500 ft.

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# PACIFIC OIL REPORTER

Vol. 4, No. 12.

SAN FRANCISCO, CAL., FRIDAY, NOVEMBER 14, 1902.

PRICE, TEN CENTS.

## SUNSET AND MIDWAY FIELDS.

**Great Opportunities Presented in These Fields for the Judicious Investment of Capital.**

**The Early Construction of a Railroad to the Coast Assures Abundant Transportation Facilities—  
Strong Companies Organized for Active Development Work.**

The Occidental Oil company was incorporated on May 1, 1900, under the laws of West Virginia, incorporated under these laws in

will assuredly enter rich, producing oil sand at no exceedingly great depth, the average well in these districts being in the neighbor-

hood of 1,000 feet. Many of the most productive of these wells have reached the oil sand at from 700 to 800 feet. Having secured its land, and become incorporated, and having sold a sufficient number of shares the company proceeded to prove its land which at that time was out of the proven oil belt. The first well was completed about December 1, 1900, at a depth of about 800 feet, and

proved to be a good producer, the oil gushing over the pipe at the rate of 500 barrels a day on the start, the oil being collected in hastily constructed earthen reservoirs. This flow continued uninterrupted until the well became clogged with sand from the gas pressure from below which forced the sand up the pipe, thus obstructing the flow of oil. This was fortunate as on account of the lack of transportation facilities the marketing of the oil from the point where the well was located would have been impossible or at least very expensive. This well was located in Sunset district in section 2, township 12, range 24.

The second well of the Occi-

About a month ago the pressure of gas was so strong that the well "broke loose," the oil being forced up on the outside of the casing, making its control a matter of great difficulty, but proving better than could be proved in any other way the immensity of the subterranean oil deposit existing below.

Having proved beyond doubt the richness of its holdings, and having an acreage so vast that no company could develop it in a century, the Occidental Oil company proceeded to set in motion a plan for the organization of a number of sub-companies, which, separately or collectively, might in the future develop this acreage and place the product advantageously upon the market.

During the last year and a half



FLOWING WELL NO. 2 OF THE OCCIDENTAL OIL COMPANY, IN SUNSET OIL DISTRICT, CALIFORNIA.

order to make the stock absolutely non-assessable.

On its incorporation the company had a very large acreage of land in Sunset, Midway and McKittrick districts, and since that time has secured much more; so at present the company has about 11,000 acres of exceedingly valuable land, much of which is already proven, and of the remainder all or nearly all is regarded to be good land, in which the drill

hood of 1,000 feet. Many of the most productive of these wells have reached the oil sand at from 700 to 800 feet.

Having secured its land, and become incorporated, and having sold a sufficient number of shares the company proceeded to prove its land which at that time was out of the proven oil belt.

The first well was completed about December 1, 1900, at a depth of about 800 feet, and

dental company was located not far from well No. 1, and was completed in the early spring of 1901, at about the same depth. This well proved to be superior to well No. 1, there being even a heavier flow of oil. The half-tone picture on this page shows the oil flowing naturally from this well in a steady stream, which flowed continuously until the well was with difficulty capped, and placed under control.

a number of oil companies have been incorporated, and located on the land originally obtained by the Occidental. Among these can be mentioned the Inter Nos and the Occidental El Rey, both of which have wells equal to those of the parent company.

The latest sub-company of the Occidental is the Elk Horn Consolidated Oil company, organized on February 26, 1902, under the laws of Arizona, which makes the stock non-assessable. The company is capitalized for \$2,500,000,



with shares at \$1 each. The officers are well-known and highly respected as California business and professional men, and who have made successes of the various enterprises they have undertaken and represent. They are J. G. Jury, President; H. B. Worcester, Secretary and Treasurer; J. M. Botts, C. H. Wicks, L. E. Gobel, A. Salyer, Dr. W. W. Eastman, Directors.

The land held by this company, comprising 1,400 acres, is not located in one solid body, but consists of a dozen or more pieces, carefully selected from the holdings of the Occidental, and isolated, all of them, in what is believed to be the oil belt, which has been proved to run in an unbroken line from Sunset on the southeast to McKittrick on the northwest, and comprises lands in Sunset, Midway, and McKittrick. Much of this land is already proven by the wells of other companies located in adjoining sections, and the Elk Horn company itself has already one well which has just entered the oil sand. This well, the first of the Elk Horn's wells, is located in section 25, and will prove to be the equal of any well in the Sunset district.

At present the lack of transportation facilities is the only drawback to this district. But it is absolutely certain that before the close of 1903 a railroad, and perhaps a pipe-line also, will be completed from the district westward to the coast at San Luis Obispo county. The line of the road is already surveyed. Contracts for oil amounting to over 5,000 barrels a day have been made by the producers with the railroad company, and it is confidently asserted that in the early spring actual construction will commence. Some of the most influential, wealthy, and experienced railroad men in the State, notably E. P. Vining, are the main promoters of this railroad enterprise, which insures its successful and early completion. The distance from Bakersfield to the coast is only 140 miles, and from Sunset only 100 miles.

On one account the lack of transportation facilities in Sunset has been and is an advantage especially to investors.

The minute that actual construction work on the new road commences, and transportation facilities and an oil market are assured, then the stocks of successful companies in this field will be in demand, and present prices will increase very rapidly. This field is the equal in every respect, and is superior in many respects to the Kern River field. In another year the demand for oil will be almost double what it is at present, and the price of oil will increase proportionately. It is to the Sunset field that consumers will largely look for the supply to meet the increased demand for oil, and producing companies will be in a position from the start to sell oil at a profit, which will enable them to declare satisfactory dividends to stockholders.

It is on this account that the Sunset and Midway fields to-day are regarded as presenting exceptional opportunities for judicious and profitable investment.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## AN OIL LAW-SUIT.

**The Inter Nos Oil Company the Defendants in the Case.**

In the case of Herman Thompson vs. the Inter Nos Oil and Development company, James Wilson and John Doe, a petition for a change of venue to San Francisco has been filed by the defendants. The Californian says: The case is one wherein the plaintiff sued to recover wages alleged to be due him for drilling and work performed on the company's property. The defendants ask that the case be transferred to San Francisco upon the ground that the office of the Inter Nos Oil and Development company is in San Francisco, and all its books and records, which are necessary evidence in the case, are there; that the residence of the defendant, James A. Wilson, is also in San Francisco and that the testimony of several residents of San Francisco is necessary for the proper trial of the case.

The Inter Nos company has also filed an answer denying that it is indebted to the plaintiff for any sum, and alleging that the latter performed his work in so unskillful a manner as to cause the loss of some \$900 worth of tools, for which loss it has been sued by the Bishop Fishing Tool company, the ruin of its well, which had to be abandoned in consequence. It alleges that the plaintiff has caused a loss of \$2,000, and asks for damages in the sum of \$5,202, the actual loss in tools, time and material provided it is possible to clear the well and make use of it.

The defendant, James A. Wilson, has filed an answer in which he claims a chattel mortgage on all the property of the Inter Nos company, and asks that any judgment rendered against said company be subject to his rights in the premises.

## BIG PUMPING PLANTS.

**Irrigation of Dixon Alfalfa Lands Conducted on a Large Scale.**

The completion of the irrigation plants of J. R. Bloom and Jas. Millar recently permits Dixon to boast of two more of the largest pumping plants in a large section of the State. The new plant on the Bloom place has a capacity of 1,800 gallons of water a minute, and the water is supplied by a 10-inch bored well. Mr. Bloom's plant is composed of a 30-horse power gasoline engine and a 6-inch centrifugal pump. The plant will irrigate 60 acres of alfalfa. Mr. Bloom has prepared an extensive portion of the 60 acres he proposes to irrigate, and will have the remainder ready for next season. Alfalfa yields abundantly under the process of irrigation, and promises to be one of the coming industries of this section.

Jas. Millar's plant is located on his place seven miles southeast of Dixon, and is made up of a 25-horse power gasoline engine and a 5-inch pump, each of which is of the same type used in the Bloom plant. Mr. Millar's is also bored. The well was sunk in the bottom of one of the dry sloughs which traverse this portion of the country and is a phenomenal water producer. Including the depth of the slough the well is but 34 feet deep, and the greatest capacity of the pump, 1,200 gallons a minute,

fails to reduce the standing water-mark in the well more than three feet. Mr. Millar will irrigate a large area of alfalfa land also.

There are few people who realize the immense amount of water a 5 or 6-inch centrifugal pump will throw. The quantity may be better understood when it is said that the stream which flows from the Bloom plant is four inches deep and fourteen inches wide.—Dixon Tribune.

## The R. H. Herron Co.

Great increase in the business of the San Francisco branch of the R. H. Herron company, dealers in oil well supplies, has necessitated the removal of the office of this firm from 411 Market street to 509 Mission street, near First street, where much larger quarters than those occupied before enables Manager W. W. Nellis to handle much more expeditiously and satisfactorily the large business of the firm. Increasing activity in development work in

northern and central California has marked the opening of the fall and winter season, and is due largely to the increasing demand for oil and the increase in its prices.

## Wanted

5,000 burners by a California refinery for a superior grade of stove distillate. Submit propositions to P. O. Box 427, Bakersfield, Cal.

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If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

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On most favorable terms. Would also lease first-class Standard Rig to responsible company.

THIS TRACT IS IN THE HEART OF THE FIELD

Address **Chas. F. O'Brien,**  
420 California Street Telephone Bush 685 San Francisco, Cal.



## ENCOURAGING REPORT.

### Development Work Progressing at Summerland and Carpinteria.

#### Operations of the Crescent and Columbian Oil and Asphalt Company in Developing Oil and Asphalt—The New Refinery Completed.

In a letter just received Mr. C. W. Ayers, president of the Crescent and Columbian companies operating at Summerland and Carpinteria, in Santa Barbara county, gives the following encouraging account of operations in this promising field:

In regard to our work will say that we are progressing very nicely. Our Crescent well on Ortega Hill is down 650 feet, with a 13½-inch hole. Cased out all surface water and annoyances at 574 feet, and are now drilling in firm blue oil shale. Much oil shows in the drillings, and the sand stratum just passed through would yield about the same amount of oil as the shallow wells of the field. We expect to go into the second sand stratum within the next 100 feet. These points are noted in the log of the well, so that pipe can be perforated and the oil let in when the well is completed. Our object being to get the deepest strata, we do not stop at the first or second sands.

Our driller, Mr. J. B. Cook, is the most expert and painstaking ever in this territory, and it is to his skill and care that we owe our success in getting down 650 feet of 13½-inch hole successfully, a thing never before accomplished in this field. He encountered all the usual obstacles and hindrances in the way of boulders, heaving and quicksands and slippery sliding shale. It is these things that heretofore caused drillers to get their hole to a point at depths of 300 and 400 feet. We are now prepared to go down successfully a distance of 2,000 feet, if necessary, to get the heavy deposits that all oil men believe will be reached within that distance from surface.

No better indications were ever encountered in any well, than are showing now.

At the rate hole is now being made we will be down 1,000 feet before Christmas.

The price of oil has suddenly advanced 10 cents per barrel in this field, and another raise of as much more is predicted before January 1, 1903.

At Carpinteria, the Columbian Oil, Asphalt and Refining com-

pany is doing some extensive work.

Its well No. 2, on Higgins land, is down 1,200 feet, and making so much gas, that steam pipes were laid from the boiler to extinguish fire in case of accident. It was predicted that a heavy body of liquid asphaltum would be encountered at about this depth, and the gas flow, together with a great amount of oil showing in the drillings, makes it look as if it was within a few feet of the drill now. A string of eight-inch drive pipe is now being put in, to insure a deep hole if necessary.

At the refinery, all is in readiness for business as soon as the barrel stock arrives to receive the product. Stock tanks are full of oil and more tanks being constructed in readiness for output of well No. 2 as soon as brought in.

Fires were put under the boiler, and preliminary tests made last week. As usual in new work some few alterations were found necessary, and these were done at once. This is one of the finest arranged and most complete refining plants of its capacity on the coast. Very truly yours,

C. W. AYERS.

#### GOVERNMENT REPORT.

##### Favorable Opinion of Our Oil Fields by Government Experts.

The annual report of the United States Geological Survey, of the mineral resources of California, just issued, has the following in regard to our oil resources:

The production of California in 1901 was 8,786,330 barrels, as compared with 4,324,484 barrels in 1900.

The State made a remarkable increase in its output of crude petroleum in the past year, a very large per centage of which came from the recently developed pools in Kern County.

The petroleum produced in this county, as well as a great proportion of that produced in the other counties of southern California, is eminently a fuel petroleum. As such, it is peculiarly acceptable, owing to there being no readily

accessible deposits of coal of commercial value in the State or in the near-by States.

The cheapness of fuel has a direct bearing on the commercial supremacy of every State or country, as it is the direct source of light, heat and power. The importation of coal from British Columbia, Australia, England, Wales and Japan, and from the State of Washington into California, amounting to nearly 2,000,000 tons annually, at an outlay of not less than \$12,000,000, must greatly decrease in the future. Especially does this seem true as the facilities for delivery of the petroleum by the pipe-line now under construction from the Kern field to San Francisco, will place this valuable liquid fuel at tide water with a guaranteed supply at such prices as will enable this locality to become a manufacturing center.

The railroads of this State have been particularly benefited by the use of this liquid fuel in their locomotives, for which it is admirably

adapted, and are at present the largest consumers.

Tests have proved that one pound of California petroleum used on a passenger locomotive evaporated 10.96 pounds of water from and at 212° F., as compared with 7.14 pounds of water under like conditions evaporated by one pound of Cmax bituminous coal, or four barrels of oil did the work of one ton of coal. This is rather below the results attained by other tests, which in many cases showed that from 3¼ to 3½ barrels of petroleum did the work of one ton of coal.

#### To Whom It May Concern.

Boulder, Colo., Oct. 6, 1902.

This is to certify that O. H. Jones, the oil locator of Los Angeles, Cal., located a well for the Otero Oil and Gas company in the Boulder, Colo., oil fields in May, 1902; that the same was drilled in to oil September 1, at a depth of 1,765 feet; that since September 3 we have been pumping 100 barrels per day. This was not near any other producing well.

F. J. CRETCHER, Director.

## GOLD!

### Never Goes Begging

It is always at par. You don't have to seek a market or discount your goods. You are not subject to the dictation or control of the trusts. For these and many other reasons a good gold property is one of the best investments, and stock in a company having a gold property of proven merit, managed by men of honesty and mining ability, offers to the poor man one of the best avenues to independence. Such a proposition is the

## Hudson Gold Mining Co.

Owning the Hudson group of mines in the Big Bug District, Arizona, surrounded by rich producing mines. To continue development a block of treasury stock is now being sold at

**10 CENTS PER SHARE**  
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Send for particulars.

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Engines & Supplies  
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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..NOVEMBER 14, 1902

The present presents greater opportunities for profitable investment in the oil industry of California than ever before.

While the oil industry is to-day four years old, it is yet in its infancy. It is just old enough and strong enough to begin to take rapid and lengthy strides.

Two years ago we consumed less than five million barrels of crude oil. Last year the consumption reached eight and a half millions. This year it will reach twelve and a half millions. Next year it will reach twenty millions. What the consumption will be four years hence we do not dare estimate. Many assert it will not be less than forty million barrels annually.

Where will all this oil come from?

The fields now supplying consumers will soon be taxed to the utmost, and it will be to the new fields, as yet unreached by transportation facilities, that consumers will eventually be obliged to rely upon.

It is these new fields that to-day present magnificent opportunities for profitable investment. Land that to-day is miles from a railroad or a pipe-line, and which can be purchased for a song, contains millions of barrels of oil in its subterranean reservoirs. This land in a few years will be worth hundreds if not thousands of dollars an acre. Just as to-day some men are millionaires who five years ago were worth nothing, so five years hence men who to-day have nothing except desert land worth \$2.50 an acre will themselves possess great wealth.

The stocks of oil companies which control thousands of acres of this desert land can be bought for a song. This stock will be worth some day, if the company is rightly managed, ten, yes, twenty

times what it is worth to-day, and those who buy a few hundred dollars' worth of stock will find they have made an investment which has made them independent for life. Probably, for a year or two, perhaps longer, there will be no financial returns, either in dividends or in increase of the worth of the stock, but the result will surely exemplify the truth of the adage that "Patience has its own reward."

Opportunities are presented to-day that should not be allowed to slip. Midway, Sunset, Coalinga, Half Moon Bay—these and other districts are to-day practically new and undeveloped fields. Wait awhile and see what these districts will do in a few years in the way of supplying the market with fuel and refining oil.

It is these and districts like that that present chances for investment to those who can afford to expend a few hundred or thousand dollars, and await the outcome.

## Fuel Oil on Atlantic Liners.

Crude oil has at last been introduced on the Atlantic liners as fuel for steam generation instead of coal. On her last voyage from Antwerp to New York the Red Star liner Kensington was equipped with fuel oil-burners in her boiler furnaces, and she made the trip across the Atlantic successfully in ten days. Her chief engineer reports that the test was satisfactory.

If the Kensington's furnaces are properly equipped, and it is to be presumed that they are, the use of coal as a fuel on her will be permanently abandoned. The great saving in the fuel bill and the increased cargo space which the burning of crude petroleum instead of coal permits are advantages which the managers and stockholders of all Atlantic liners will not be slow in detecting.

A large number of freight steamships operated on the Atlantic have been using fuel oil for steam generation with perfect success for a long time. It is surprising that the passenger steamships have been so backward in imitating their example. Now that one of them has used it with success, others will probably follow. The greyhounds of the Atlantic are enormous coal consumers, and a great army of coal-passers and stokers is employed on each one of them under conditions of extreme physical discomfort. The adoption of oil-burners in the furnaces of the Mariposa and other steamships sailing from this port proved that the use of liquid fuel results in a great economy of labor, while it increases immensely the comfort of the men employed in the stoke hole. These are considerations of considerable importance in the operations of all steam vessels.—S. F. Chronicle.

## Fuel Oil in Steam Vessels.

A British tank steamer and oil-carrier and oil-burner has made a record voyage from Batoum, on the Black Sea, to Sydney, New South Wales. Three advantages in the working of the vessel were obtained as a result of the voyage. She burned daily one-third less weight of oil than she was previously accustomed to burn of coal for the production of steam, made better speed by one-half a knot an hour and carried only two-thirds her former crew.

The experiences of this tank steamer correspond with those of the steam vessels supplied with fuel-burning furnaces which are employed on this coast. The

great saving in labor occurs in the stoke-hole, where three furnace tenders are able to do the work of a dozen coal stokers, with about one-tenth the effort and an incomparable degree of comfort and cleanliness. The economy of fuel-oil consumption is further exemplified in the reduced cost of steam production and bunker area for fuel storage and in an increased area in the ship's hold for cargo carrying. All of these factors enter into the problem of the earning capacity of steam vessels, which is, after all, the chief consideration with their owners.—S. F. Chronicle.

## Oil and Gas Patents.

The following recent patents relating to oil and gas and their production are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, patent attorney, Park building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Machine or engine oiler, G. J. Kraushaar, Cleveland, Ohio; No. 711,114.

Tool for withdrawing casing from wells, Samue Bennison, Galveston, Texas; No. 711,378.

Drill for oil or other wells, W. E. Johnston, Conoquessing, Pa.; No. 711,506.

Steam boiler, R. M. Downie and D. A. Messner, Beaver Falls, Pa., assignors to the Keystone Driller company, same place; No. 711,557.

Pump for deep wells, A. J. Webster, M. W. Hall and W. E. Stadler, Bakersfield, Cal.; No. 711,804.

Adjustable grip elevator for casing or tubing, C. L. Smith, Oil City, Pa., assignor to Oil Well Supply company, Pittsburg, Pa.; No. 711,911.

Hydrocarbon burner, F. L. Carter, Dorsey, Md.; No. 711,936.

Hydrocarbon burner, C. R. Kittle and G. E. Harpham, Los Angeles, Cal.; No. 712,142.

Power mechanism for pumping wells, J. J. Kwis, Findlay, O., assignor to Adams brothers company, same place; No. 712,314.

Sand reel, Andrew Benson, Bradford, Pa.; No. 712,480.

Antifriction devices for sucker rods, W. L. Black, Fort McKavett, Texas; Nos. 712,486, 712,487 and 712,488.

Drill for boring wells, A. C. Shuster, Bakersfield, Cal.; No. 712,734.

Hydrocarbon burner, D. C. Wilgus, San Francisco, Cal.; No. 712,879.

Antifriction device for sucker rods and couplings, W. L. Black, Fort McKavett, Texas; No. 712,901.

## Associated Bonds.

The Union Trust company of San Francisco has been made trustee in an issue of the Associated Oil company's bonds for \$5,000,000. There are 5,000 of these bonds of the value of \$1,000 par each. They run for twenty years, and interest at the rate of 5 percent, payable in semi-annual coupons. It is probable that an attempt will be made to issue \$2,500,000 of these bonds at once in order to pay for oil properties purchased by the Associated.

While the Union Trust company is made trustee, this does not mean that the Union Trust company guarantees the worth of the bonds or the payment of principal and interest.

It is rumored darkly that the Associated is trying to raise \$20,000,000 for two pipe-lines, storage facilities, refineries, tank steamers, and the purchase of a great quantity of new territory in the Coalinga and other districts.

## Oil Delegates.

The annual meeting or convention of the California Miners' Association will be held during the first three days of the coming weeks in this city. The following will be the delegates from the California Petroleum Miners' Association: Hon. M. H. DeYoung, Arthur R. Briggs, G. X. Wendling, Geo. H. Ismon, Prof. E. P. Heald, E. A. Denicke, Dr. C. T. Deane, W. B. Winn. A paper on the "Oil Industry of California from a Commercial Standpoint" will be read by Secretary Dr. C. T. Deane, representing the oil men. Other valuable papers and essays will be read.

## Alert May Burn Oil.

It is reported that the revenue cutter Alert, now at Mare Island, will be fitted with oil-burning apparatus as an experiment, as the result of the recent favorable report made to the Government by Lieutenant Wenchell, who not only witnessed the experiments made on the steamer Mariposa, but made a trip in that vessel to Tahiti. The Alert will be the first of the Government vessels on this coast to discard coal for oil.

## Crude Oil for Hawaii.

The ship Marion Chilcott sailed last Friday for Honolulu with 714,000 gallons of crude oil, valued at \$22,100, as its cargo. The vessel also carried 17 drums distillate, valued at \$207, destined to the same port.

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## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### FRESNO

W. E. Youle, who is drilling the Smith-Gorrill well, says the well is down 1,800 feet, with 5½-inch casing, the well at present being full of water. The amount of gas in the well is enormous, the gas pressure each day at intervals sending a column of water 150 feet high. Work is now suspended, waiting the 5-inch drive-pipe.

#### FRESNO

They are now manufacturing gasoline, benzine, 52 distillate, kerosene, stove distillate, neutral oils, green oils and all the different grades of asphalt, and they expect to be making several different grades of lubricating oils within the next three or four weeks. The question of cheap fuel is of vital importance to everyone in the San Joaquin valley, and it is to be hoped that the burners the company is now trying will prove a success, as in that case the public will receive the benefit of distillate for fuel, which would be cheaper and much more convenient than wood or coal.

After the misfortune of having two fires within one month, and the delays necessary to reconstruct the portions burned, the oil refinery of the California Fresno company at Fresno, started last Friday to refining oil up to their extreme

capacity of 150 barrels (crude) per day. There have been several changes made, President and General Manager H. H. Hart taking the active management, while the refining department is now in charge of E. A. Edwards, a thorough refiner, he having been all the way through the business, handling both Ohio and California oils. Mr. Edwards' thirty years experience is shown in the systematic manner in which the oil is handled from the time it is unloaded from the cars until it is ready for the market.

#### KERN

The case of C. A. Phelps vs the Kern Oil company has been compromised and settled out of court.

Negotiations are in progress for the purchase of a 40-acre tract in Midway district, the consideration named being \$200 per acre.

The Californian says: The Western Union is soon to be sold at sheriff's sale. This company has the possessory right in 160 acres of land in the range of hills to the east of the Midway belt, and before it got into financial difficulties, it put down a hole 600 feet in depth, passing through one small stratum of oil sand and tapping a gas pocket which yielded fuel with which to run the domes-

tic part of the enterprise. The prospects were very flattering.

The large gusher of the Monte Carlo Oil company, at Kern River, is again flowing. This well formerly had a record of about one thousand barrels a day, but later began to subside and had to be pumped. It also began to yield considerable water, caused, it is said, by the well being dug too deep and the water entering from the bottom. This has now been stopped. Three measurements taken show now 350, 450 and 800 barrels of oil respectively, all of the best quality. The stratum from which the oil comes has been proven intact.

The last of the pipe for the San Francisco McKittrick's line from its lease to the railroad at Olig is being laid, and very shortly the company will be in a position to deliver oil. It has made a contract at a fair price. The San Francisco-McKittrick is located up the Gulch above the spot where the Giant drilled its immense wells. It has one good well, and another which has been partially spoiled in the making. A third was abandoned altogether. Of the two wells to be put on the pump, one is rated at twenty-five barrels and the other was worked for five days producing a gross average of 350 barrels a day.

Contracts are now being signed by most of the companies operating here, agreeing to furnish the 5,000 barrels of oil a day for shipment demanded by the Midland-Pacific railroad as a condition of building that line. H. W. McCray, agent of the company here, has received notice from the company's

officers in San Francisco that arrangements have been made for placing the necessary bonds for the construction of the line whenever the requisite amount of oil shipments has been guaranteed. So far the delay has been due for the most part to the fact that many directors of companies are scattered and seldom meet. Mr. McCray says he considers the railroad assured. There is, however, the condition attached that the satisfactory amount of freight must be guaranteed. The claims of the promoters that 5,000 barrels of oil per day can be secured for ten years, must be made good. An agent of the capitalists who are to take the bonds will inspect the situation, and upon his report will depend the sale. The assurance is given that should he find that the requisite amount of freight has been awarded, the sale will take place. If he does not find that to be the case, no money will be forthcoming. That being the condition, it seems improbable that those producers who have decided to sign the freight contracts, will no longer delay, but will rather hasten to close them up, in order that these money-lenders will have convincing proof that the road will pay from the start.

#### ORANGE

Another new well was brought in last week by Brea Canyon Oil company. It is good for at least 300 barrels daily.

A new well on the Graham-Loftus lease is now down nearly 2,200 feet. There are nearly forty tons of 5½-inch casing in this well.

Sealed bids for furnishing Santa Ana with 10,000 barrels of fuel oil

# THE ELK HORN CONSOLIDATED OIL COMPANY

J. G. JURY, President      J. M. BOTTS, Vice-President  
H. B. WORCESTER, Secretary and Treasurer

Capitalization, \$2,500,000      Present Selling Price of  
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Owens 1,400 Acres of Oil Land in Sunset,  
Midway and McKittrick Districts.

Main Office, 470, 471 and 472 PARROTT BUILDING  
San Francisco, Cal.



for use at the waterworks in 1903 were opened at a recent meeting of the city council, and the contract was awarded to the Central Oil company, the lowest bidder, at 72½ cents a barrel, delivered f. o. b. in Santa Ana. Bids were received from seven companies, and ranged from 72½ to 89 cents a barrel.

#### SANTA BARBARA.

A fuel oil tank of well No. 13 on the Western Union oil field caught fire last Friday evening and was completely destroyed. Fortunately there was but little oil in the tank at the time, and before any serious damage could be done, the flames were put under control. How the fire originated is not known, it is presumed, however, to have been due to the carelessness of an employee.

#### SAN LUIS OBISPO.

The San Luis Gas company have made many new improvements in and around the old gas plant. They are now putting in a large tank capable of holding several thousand of gallons of oil, alongside of the main building. The oil will be used for fuel in running the works.

#### SAN MATEO.

The development work is progressing very satisfactorily in the Halfmoon Bay district. Some new discoveries of an important nature are reported just as this paper goes to press. Mr. Kerr, of the Wisconsin Oil company, which has a well down over 1,200 feet, does not deny that important and good news has been received, but refuses to state particulars. Every

attempt is being made to secure leases on land.

#### In Wyoming.

The Ellis oil well, on section 22, near Spring Valley, Wyoming, owned by the Atlantic and Pacific Oil company of Wyoming and California, when put on the beam proved itself to be the greatest producer of any yet struck in Wyoming. Two 150-barrel tanks were filled during the first day, and when pumping ceased the oil stood 900 feet in the well. The oil is of a most superior quality, abounding largely in naphtha and gasoline and other valuable products, being worth about \$8 per barrel in the crude state, just as it comes from the well.

#### Alameda to Burn Oil.

The steamer Alameda, Captain Harriman, has arrived from Honolulu, and is to be succeeded on the route by the Zealandia. The Alameda, after being converted into an oil-burner, will resume her place on the line. Such success has attended the Mariposa as an oil-burner that the Oceanic company has for some weeks been preparing to place her sister-ship, the Alameda, in the same class.

#### Steamer Nebraskan.

The steamer Nebraskan, Captain Delano, sailed on Monday on her first trip to Honolulu and Kahului. Since arriving from New York, a few weeks ago, the vessel has been converted into an oil-burner.

#### SUITS FOR DAMAGES.

##### The Southern Pacific Sued for Not Furnishing Tank Cars.

Suits for damages for alleged failure to furnish tank cars for the transportation of fuel oil when required are piling up against the Southern Pacific. Claims for fully \$1,000,000 in these suits have already been brought against the corporation by angry shippers in Texas and this week General Manager Julius Kruttschnitt was served with a notice that another case for \$102,500 damages had been brought against the road.

These suits come from oil companies in the Beaumont district of Texas. A part of the burden of the Texas complaints is discrimination in the matter of furnishing cars, the company being accused of favoring the large shippers at the expense of the small ones. This allegation the company's officials deny. They admit a shortage of tank cars owing to the remarkable increase in the business of shipping oil from the Beaumont fields and the delay of the car manufacturers in turning out orders. It appears, however, that agents of the company made contracts to ship large quantities of oil within a certain period. The company has not been able to fulfill these contracts.

#### Oppose Standard Oil.

A special dispatch received at London from Calcutta says that the Indian government has refused the Standard Oil company permission to prospect in the oil fields of Burmah.

Chanute, Kan., oil men are organizing to build a big refinery there. Chanute has become one of the settled oil districts of America.

The Palestine-Beaumont Oil and Development company last month distributed something more than \$16,000 in its first 5 percent dividend.

#### Pacific States Mining and Investment Company.

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

Gold bonds furnished to facilitate sale of stocks.

Stock issues underwritten on the American or London plan.

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# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

1. The advance to par of one stock out of four will return in cash **112 percent** on the investment.
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Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies.

All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

### INDEX.

Facts Worth Reading.....	Costly Advertising.....
Investigations.....	Why Some Corporations Fail.....
Trust Fund.....	Our Plan.....
Debentures.....	A Word About Our Business.....
Experienced Management.....	A Good Thing to Do.....
A Word of Caution.....	Satisfied Stockholders.....
Our Invariable Rule.....	The Percent of Failures.....
No Man Always Knows.....	A Refinery.....
Loans to Customers.....	Maps and Photographs.....
Our Profits.....	Ten Reasons Why.....
The Big Four.....	The Price of Oil.....
Directors of The Oil Companies.....	Press Notes.....
Reports Upon The Property.....	Faithful Oil.....

Our location is 35 miles from San Francisco with tidewater transportation.

## THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION: TRANSPORTATION, MARKET, PRICE.

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity.

Investigate this proposition.

Write us for maps, pictures, literature, etc.

## THE DEBENTURE SURETY COMPANY, (INCORPORATED.)

230 Bush St., Mills Bldg., San Francisco, Calif.



## THE COALINGA FIELD.

### Producers Complain of Lack of Tank Cars for Transportation Purposes.

**Over Eighty Producing Wells Now in the Field, Which is Capable of Easily Producing Yearly More Than 1,500,000 Barrels of Superior Oil.**

In 1901 the Coalinga field produced 740,000 barrels of oil. At the close of the year there were in the field a total of only 41 wells that were producing, 33 wells that could produce on demand being shut in and capped, on account of both lack of demand for their product and lack of transportation facilities.

The 41 producing wells were located near the center of the field, principally in sections 20 and 28. Their average daily yield, according to the figures, was only

about 230 barrels a day, or at the rate of a little more than 5 barrels to the well.

about 230 barrels a day, or at the rate of a little more than 5 barrels to the well.

This, however, was not the producing capacity of these wells. For lack of market and transportation facilities the wells were not allowed to produce near what they could. A few, but very few, owned by companies who had large contracts, were enabled to pump their wells quite steadily, but outside of these few, the pumps were idle most of the time, so that many wells, able to show a steady output of 200 barrels a day, did not yield more than at the rate of 5 barrels a day. This accounts for the low average.

The accompanying table shows that the company having the largest number of producing wells in the Coalinga field is the California Oil Fields, Limited, which is a close corporation of English capitalists of which Robert Balfour of Balfour, Guthrie & Co., is the chairman, and Arthur W. Rowe is the Secretary. The main office is in London.

A year ago last May the Company secured possession of 4,513 acres of land in the Coalinga dis-

trict, and immediately commenced active development work.

Nine complete rigs were secured, and eleven wells were drilled, three of them being in the southwest corner of section 21, township 19, range 15, and eight in the northwest corner of 2, 19-15.

These wells are of different depths running from 800 to 1,400 feet. Their productive capacity has not as yet been actively tested owing to the lack of railroad transportation. It is thought that these wells can easily produce 2,000 bar-

Kern River product. These tank cars can then be used for transporting the product of the Coalinga field.

This field can now produce nearly, if not quite, 1,500,000 barrels of oil a year, if the market required it and transportation facilities could be obtained. This supply could be furnished from the wells now drilled within marketable distance of Ora. Much of this oil is capable of being refined.

The yield of this field could be doubled every six months, as there are thousands of acres of land as yet untouched by the drill, which are undoubtedly first-class oil land.

There are probably at least 40 complete rigs now in the Coalinga field, most of them now idle, which could be put into practical use, provided there was a market for the product, and transportation facilities to handle it.

There is earnest talk of a pipeline from this district to the bay. If the talk ever materializes into action, and a pipe-line is built, it would undoubtedly pay from the start, so far as there being a sufficient quantity of oil is concerned.

branch line to connect with its main line from Bakersfield, only eighteen miles away. Both of these plans are feasible, and no doubt have been entertained by both these great concerns. At present neither has taken the matter up in earnest, though it would appear that either could handle the oil to advantage, the Standard especially, when its Point Richmond refinery is completely in operation.

If, after waiting a reasonable time, neither of these companies comes to the rescue of the producers of the Coalinga field, the producers themselves will take up the matter and endeavor to effect some solution of the transportation problem which is to-day the only obstacle in the way of making the Coalinga field one of the greatest oil fields in California.

There were 321 cars of oil shipped out of the Coalinga field last month, or an average of a little over 10 cars a day. This is a very small amount of oil to be shipped from as good a producing district as that, but the scarcity of cars for shipment still continues,



PORTION OF THE COALINGA OIL DISTRICT, FRESNO COUNTY, CALIFORNIA.

The picture shows the camp of the California Oil Fields, Limited, well No. 1 of the Sauer Dough, well No. 1 of the Caribon, and five wells of the California Oil Fields, Limited, with storage tanks.

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rels a day. The oil is of 22° and 29° gravity, the former being used for fuel and the latter for refining purposes, the 29° gravity oil being used very largely by the refinery recently erected at Fresno, where a very fine quality of illuminating oil and resulting distillates are produced. This oil is worth 75 cents on the cars at Ora.

The company has its own pipeline from the storage tanks at the wells to the railroad at Ora, a distance of eight miles, the pipe having a diameter of four inches, and being able to carry several thousand barrels of oil daily. At the wells the company has a storage capacity of 8,000 barrels, and its tanks at Ora will hold 20,000 barrels capacity each. At the wells there are four tanks, two for heavy and two for light oil.

The company is doing no development work at present, waiting for an increase in transportation facilities, which will enable it to market its oil.

When the Standard pipe-line for Kern oil is completed, it is expected that many more tank cars will be supplied which are now in daily use for the McKittrick and

The only trouble is the present lack of an assured market to handle the large amount of oil which must be carried by a pipeline in order to make the line pay.

There are now in the field several pipe-lines owned by individual companies, and other companies whose land is located in other directions would also have their own lines all radiating from a common center. These lines together would carry to a common center all the oil that a big, pipe-line to the bay could possibly handle.

As the oil from this district is coming more and more into demand as the refinery people learn how to handle it properly, and appreciate its value for refining purposes, the question of transportation is becoming more and more vital to the success of the entire field. The time is undoubtedly near at hand when the transportation problem will be solved.

Some assert that the great Union Oil company which already has a pipe-line and large storage capacity in the field will build a line to its refinery at Oleum. Others assert the Standard will build a

greatly to the detriment of the district.

There are at present in the Coalinga field proper 23 oil companies which have producing wells. These are as follows:

Name of Company.	Location	Nc. of Wells
Chauslor & Canfield.....	17, 19-15	6
Coalinga.....	20, 19-15	10
Home.....	20, 19-15	7
Cala. Oil Fields, Ltd.....	21, 19-15	3
Cala. Oil Fields, Ltd.....	27, 19-15	8
Sauer Dough.....	22, 19-15	1
Caribou.....	22, 19-15	3
Fauna.....	28, 19-15	2
Hanford.....	28, 19-15	2
Independence.....	28, 19-15	7
Twenty-Eight.....	28, 19-15	5
Oil City Petroleum.....	28, 19-15	5
Producers Guaranteed.....	31, 19-15	2
Atna.....	30, 19-15	1
Confidence.....	31, 19-15	3
Maine State.....	31, 19-15	3
Commercial.....	31, 19-15	1
El Capitan.....	31, 19-15	2
Phila. & S. F.....	36, 19-14	2
Fresno & S. F.....	1, 20-14	2
Mercantile Crude.....	6, 20-15	2
York Coalinga.....	6, 20-15	2
S. F. Crude.....	6, 20-15	1
Esperanza.....	6, 20-15	1
St. Paul-Fresno.....	23, 20-14	1
(24) Total.....		82



## California Stock and Oil Exchange.

NOVEMBER 12, 1902.

Now that the election is over and the smoke of battle cleared away, a slightly better feeling has been apparent on the exchange.

The stocks most actively dealt in have been firmly held, and what trades have been made were fully up to 1st week's prices, and in some instances an advance was recorded. Several hundred shares of Peerless changed hands at an advance of from 50 cents to 75 cents over last week's figures, closing at \$9. A few shares of Sterling were sold under forced sales as low as \$1.50, but that figure was offered at the close for the stock in large blocks. Home remains steady with an occasional sale at \$2.80. Monte Cristo is firmly held at \$1.10 with a few sales at \$1.07½. The assessment of 1½ cents a share levied on Monday on Independence seems to have been pretty well discounted as 4 cents is offered with little to be had at that figure.

In many instances there is quite a wide margin between the bid and asking price, whilst in other cases the dividing line between buyers and sellers is very thin, and a slight concession on either side would effect business. To promote trading in some of the cheap stocks, it might be well for the Board to allow bids to be accepted at an advance of half a cent, or even a quarter of a cent. Take stock like Lion and Independence, for instance, an advance bid must be a rise of 20 or 25 percent respectively over the value of the stock, which would be an unheard of rise in the case of a higher priced stock.

The old "bug-a-boo" of "water in the wells" has been played again as a trump card to depress the value of Monte Cristo on section 5, but just why it should affect section 33 so as to cause a sale of Imperial at \$15 is a little hard to understand. 33 and Imperial, owning between them all of the section, are each paying at the present price about 16 percent per annum interest upon the investment.

In miscellaneous securities there has been little business transacted during the week, buyers and sellers seemingly being too wide apart.

With the exception of a rise of several points in Giant Powder, and a slight appreciation in the value of some of the Sugar stocks, there is little change to note.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, November 12:

### FOUR.

500 at \$ 50..... \$ 250 00

### HOME OIL.

225 at 2 80..... 630 00

### IMPERIAL.

100 at 15 00..... 1,500 00

### INDEPENDENCE.

1,000 at 04 (S 30)..... 40 00

3,500 at 04..... 140 00

### MONARCH.

1,100 at 17..... 187 00

### MONTE CRISTO.

1,500 at 1 07½..... 1,612 50

300 at 1 07½ (B 10)..... 322 50

### OIL CITY PETROLEUM.

1,000 at 14..... 140 00

### PEERLESS

20 at 8 50..... 170 00

100 at 8 75..... 875 00

500 at 9 00..... 4,500 00

50 at 9 00 (B 30)..... 450 00

## STERLING.

200 at 1 52½..... 305 00  
100 at 1 50..... 150 00  
100 at 1 50 (C)..... 150 00  
100 at 1 55..... 1 55 00

10,395 Shares Amount \$11,577 00

### ALASKA PACKERS.

5 at 161 00..... 805 00

### FIREMENS' FUND.

33 at 314 50..... 10,378 50

### HUTCHINSON SUGAR.

15 at 14 75..... 222 25

### MOKAWELI SUGAR.

65 at 23 00..... 1,495 00

### NORTHERN CAL. POWER CO.

100 at 8 00..... 800 00

### ONOMEA SUGAR.

50 at 23 00..... 11,50 00

### SPRING VALLEY WATER.

20 at 85 25..... 1,705 00

### UNION SUGAR.

37 at 11 12½..... 411 62

325 Shares Amount \$16,966.37

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TELEPHONE MAIN 1552.

## J. B. HILL

Member Producers' Oil Exchange

Mills Building, Sixth Floor, Room 9.

Telephone, John 946

Member of Producers' Oil Exchange and of San Francisco Stock and Exchange Board

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San Francisco, Cal.

Member of San Francisco Merchants' Exchange and Producers' Oil Exchange.

## Joseph B. Toplitz

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Telephone Bush 385, 330 PINE STREET San Francisco, Cal.

Reference: California Safe Deposit and Trust Company, S. F.

## NOTICE OF ASSESSMENT.

LOMA PRIETA PRUNE RANCH COMPANY, Location and principal place of business, San Francisco, California. Location of ranch, Monterey County, California.

Notice is hereby given that at the meeting of the Board of Directors held on the 10th day of November, 1902, an assessment of five (\$5.00) dollars per share was levied upon the capital stock of the corporation, payable immediately in United States Gold Coin, at the office of the Secretary, 333 Washington St., San Francisco, California.

Any stock upon which this assessment shall remain unpaid on the 10th day of December, 1902, will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on Friday, the 9th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.

By order of the Board of Directors.  
FRANK MORTON, Secretary.

50 Percent a year. How to make it. Write J. D. Johnston, Newport, R. I.

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MEMBER CALIFORNIA STOCK AND OIL EXCHANGE  
MEMBER TONOPAH STOCK EXCHANGE

Telephone Bush 385

Bank Reference: California Safe Deposit & Trust Company, S. F.

RECOMMENDS OF

## California Oil Stocks:

"Home," paying monthly dividends of 7½ cents per share.

## Tonopah Mining Stocks:

"United Tonopah"

## California Gold Mining Stocks:

"Lightner," paying monthly dividends of 5 cents per share.

and other marketable and good and dividend-paying stocks.

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Tonopah Map  
Price List

Write to the undersigned for information regarding Oil and Mining Stock Investments paying regular dividends, returning 10 percent to 24 percent per annum; also for suggestions as to the best speculative purchases. Correspondence invited. Address:

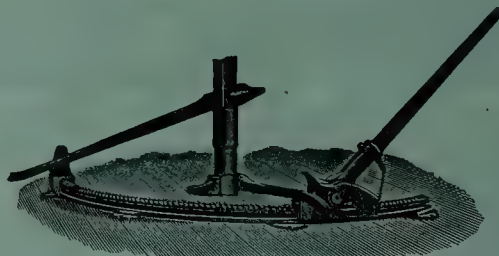
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WASHINGTON, PA.

Manufacturer of



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Oil & Gas Well Rig Irons  
Sand Reels, Cants,  
Arms and Pins. Also  
the Original Tool  
Wrenching Jack, the  
best and cheapest on  
the market.

## The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED.

It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits.

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## PENNSYLVANIA DRILLING COMPANY

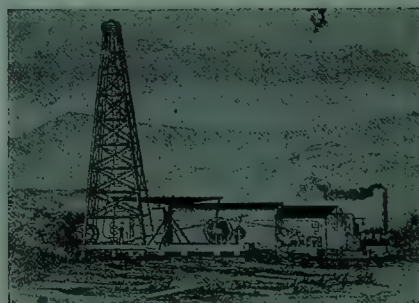
Largest Supply of Fishing Tools | No other company has all the odd  
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CONTRACTOR & OIL EXPERT



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Colusa Co., - Cala.



**OILED ROADS.**

**A Process of Making Them Said to Be Satisfactory.**

The secret of making a really satisfactory oiled road lies in thoroughly incorporating the oil with the soil. Engineer E. W. Case, of Colorado springs, Colo., who has made a special study of the oiled roads of California with a view to adopting the system in Colorado springs, says that the proper method of using the oil in street or road construction is to prepare the street or roadbed by excavating to a depth of from four to six inches below grade. This sub-grade should be rolled into a firm, solid roadbed. Should the materials at the sub-grade not be capable of solidifying by rolling, then the material necessary to make a solid roadbed should be added, and thoroughly rolled, keeping in view the proper crowning and drainage. Upon this prepared roadbed from two to four inches of gravel should be spread, Sprinkle this layer of gravel thoroughly, taking great care that every part of the layer is thoroughly wet, so that it will compact itself as much as possible, without rolling. When sufficiently dry on the surface, the oil, heated to about 200° Fahrenheit, should be sprinkled over the surface, in sufficient quantity that the graveled roadbed will be thoroughly saturated, but no oil left standing. The whole is then covered with a thin layer of sand, from one-quarter to one-half inch, and thoroughly harrowed, not to exceed one inch in depth. After about forty-eight hours, the roadbed is again sprinkled with the heated oil, covered with sand and harrowed. The quantity of oil is much less at this second application. Three times should the roadbed be sprinkled with the hot oil, covered with sand and harrowed, but after having thoroughly harrowed the roadbed for the third time, it should be well rolled with a light roller, care being taken that the roller is not heavy enough to break the bond. A road or street prepared in this way will be nearly as good as an asphalt paved street, at about one-fifth of the cost. This method does away with objections raised, viz.: the tracking of oil into houses, the soiling of ladies' dresses and the annoyance of the oil flying from the wheels when driving or bicycle riding.

**OIL IN CEYLON.**

**Successful Experiments With the New Fuel in Drying Tea.**

Extensive experiments with oil to be used as fuel for tea drying in place of firewood have recently been conducted in Ceylon with apparently very gratifying results. The steam jet system is used, and absolutely no alteration for the use of fuel oil is required in the furnace. The burner is placed on the front of the furnace on trunnions, and can be swung out of position at a moment's notice when the furnace is again ready for solid fuel. The oil tank can be placed at any convenient place in or near the factory. One

man only is required to work the whole arrangement. The fuel used was Borneo oil, and the amount of fuel consumed on an average of a long series of tests was less than six gallons per hour. Actual tea drying was carried on during the whole of the experiments. A great advantage of the new system is the equality of temperature for drying that can be maintained, whereas with firewood, as the tea makers know, that is a very difficult matter. It is said that with fuel oil a considerable saving in cost can be made. There is every reason to believe that fuel oil for tea drying will in the near future become almost universal.—London Petroleum Review.

**Oil Tests.**

The gravity of an oil represents how much lighter it is than water. The fire test of a kerosene oil shows what degree of heat it will stand without exploding. The oil we commonly burn will stand 150° without exploding. The kerosene which is sold in Europe will stand only about 110° of heat. It would be illegal to sell such oil in New York State or Pennsylvania.

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97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

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School lands may be taken from 100 to 400 acres. Lands abound in all counties in State. They require no condition as to residence on land or cultivation, and carry all minerals and deposits, only \$1.25 an acre. Easy terms. Portunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and Cheapest speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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**CVGNET PETROLEUM CO**

Capital.....\$150,000  
50,000 shares at \$3.

Location—Fresno county.  
Directors—Chas. L. Fair, president, Blitz W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McElroy, secretary.  
Office—561 Parrott Building,  
Tel.—South 124.

**POTOMAC OIL COMPANY.** Capital stock, \$2,850,000; Par value, \$1.00. Has 2,000 acres in Kern, Los Angeles and Summerland fields, with 30 producing wells. Officers and directors: F. V. Schermerhorn, president; C. H. Ritchie, vice-president; R. D. Robinson, secretary and treasurer; D. M. Schermerhorn and W. S. Morton. Principal office, Potomac building, Los Angeles, Cal. Tel. John 2281.

**STANDARD ROCK OIL COMPANY.**

Capital.....\$500,000  
Treasury stock.....\$300,000

Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.

Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.

Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. R. J. Ensign.

Offices: 475-76 Parrott Building, 833 Market street, San Francisco, Cal.

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Cut shows boiler mounted upon frame of machine oil and gas works. It is usually advisable to have boiler mounted upon trucks separate.



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The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2825 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

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**Made in Sizes to Suit Territory.**

The only machines made that are absolutely without annoying springs. They are simple powerful and efficient, easy to handle at work or on the road. Used in every State and Territory and in many foreign countries.

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# 50 cents Asphaltum Refinery 50 cents

A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 3.

SAN FRANCISCO, CAL., NOVEMBER 21, 1902.

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# PACIFIC OIL REPORTER

VOL. 4. No. 3.

SAN FRANCISCO, CAL., FRIDAY, NOVEMBER 21, 1902.

PRICE, TEN CENTS.

## ANNUAL CONVENTION.

### Successful Annual Gathering of the Miners of California.

### The Oil Industry of the State Receives Special Attention and Interesting Papers Are Read By Specialists on Different Phases of the Industry.

The eleventh annual convention of the California Miners' Association has been held this week in San Francisco.

At this convention the oil industry was represented, several of the most interesting papers read at the convention pertaining to this most important branch of the mining industry.

The oil industry was represented by the California Petroleum Miners' Association, which sent the following delegates: Hon. M. H. De Young, Arthur R. Briggs, G. X. Wendling, G. H. Ison, Dr. C. T. Deane, Prof. E. P. Heald, E. A. Denicke, W. B. Winn.

In his opening address President E. C. Voorheis spoke of the great and increasingly important part oil was playing in the mining industry of the State, and prophesied great things in store for the young giant. Dr. C. T. Deane read a paper on "The Oil Industry of California from a Commercial Standpoint," which was listened to with the closest attention and received deserved applause.

Alfred Von der Ropp, a Prussian nobleman, who is superintendent and general manager of the Selby Smelting company's big plant, and rated as one of the foremost men in his line in America, read a very practical paper on his experiences with crude oil as fuel in smelting. The paper is published below, and contains information of great value to users of crude petroleum, no matter for what purpose the oil may be used.

Mr. A. M. Hunt, general manager of the Spreckels Gas Plant, and designer of the Independent Electric Light and Power company's system, read an exceedingly valuable and suggestive paper on "The Use of Crude Oil as Fuel as Compared with Coal." Lack of space compels the postponement of the publication of this paper until next week.

The address of Dr. C. T. Deane was as follows:

Mr. President and Gentlemen of the California Miners' Association:

One year ago, when I had the honor of reading a paper on "The Oil Industry of California" before you, I said: "I present the following facts and suggestions on the oil-mining industry of the State. In it are included statistics gleaned from the most reliable sources upon the subject, which will demonstrate to you the marvelous development which has taken place during the

last twelve months along the great oil belt, together with the possibilities in store, from a commercial standpoint, for an industry which already ranks as one of the most important in the State." I have now to continue the story from the time elapsed since writing the above. Without going into the scientific phase of the question, leaving that for abler hands, we will simply review the situation from a commercial standpoint.

#### DIFFERENT OIL DISTRICTS.

There are now in California 2,500 producing wells, situated in fourteen different districts, as follows: Kern River, Sunset, Midway, McKittrick, Coalinga, Santa Maria, Los Angeles, Fullerton, Puente, Whittier, Ventura, Summerland, Brea Canyon and San Mateo; of these, the chief oil-producing districts are Kern River, Sunset, McKittrick and Midway in Kern County, Coalinga in Fresno County, Fullerton in Orange County and Santa Maria, or Carreaga, in Santa Barbara County.

#### YEARLY OIL CONSUMPTION.

The total consumption of oil in California in

1900 was.....	4,000,000 barrels.
1901 ".....	8,000,000 "
1902 will be.....	12,000,000 "
1903 (Estimated).	20,000,000 "

The increase next year will be largely due to the railroads burning oil exclusively. The reason they have not done so heretofore is the delay in placing tankage, which is rather a slow process, it being necessary to place an oil tank wherever there is now a coal bunker, about fifty miles apart along the whole line.

I have calculated very carefully the amount the railroad companies will use, and, taking a very conservative view, I cannot make it below 8,000,000 barrels, equal in amount to what the whole State consumed in 1901. I have had this estimate confirmed by several different experts, both railroad and oil men. One of the very best informed of these gentlemen makes it 10,000,000 barrels, which certainly places me within bounds.

The factories, railroads, electric light companies and gas companies (gas is now being made exclusively from oil) in and around San Francisco will certainly use 3,000,000 barrels, (Fire Marshal Towe informs me there are over three hundred boilers using oil daily in San Francisco), and we have left for the rest of the State 9,000,000 barrels, which is hardly enough, when you take into consideration the steamers, mines, electric roads and light

companies, factories, gas companies, refineries, etc., creating a demand all over this vast territory.

Railroads.....	8,000,000 bbls.
San Francisco and vicinity	3,000,000 "
Rest of the State.....	9,000,000 "
Total.....	20,000,000 "

Prophecy is a thankless task, but from a careful consideration of all the facts which are daily brought to my attention it is safe to conclude that before the end of 1905 we will be producing and marketing 50,000,000 barrels of oil per annum, but for the present 20,000,000 is a safe estimate.

If every well now existing was pumping to its full capacity, 16,000,000 barrels is as much as we could put into consumption. A very large number of the 2,500 wells alluded to above (at least 1,000) are in or near the City of Los Angeles, and these wells produce less than one million and a half barrels per year, so we have therefore to look for our great supply in the future to the other districts—Fullerton, Kern River, Coalinga, Sunset, Midway and McKittrick. It is easy to perceive from these figures that the main difficulty for some time to come will be to provide a supply of oil in conformity with the continually growing demand.

#### PRICE OF OIL TO ADVANCE.

Instead of capped wells, and each corporation underbidding each other, trying to force the price of oil down for selfish purposes, all caps will be removed, and pumps will work day and night to meet this demand; oil, instead of 20 cents per barrel, will jump to 35, 40 and 50 cents.

It was only a year ago that at Beaumont, Texas, oil was going begging at 5 cents, and it is hard to get to-day at 35 cents. I am afraid that some of the corporations that have been making long contracts at almost cost price will be trying to evade them, and it will not be astonishing to see a heavy crop of lawsuits.

#### TRANSPORTATION FACILITIES.

There are 1,300 tank cars owned by the Southern Pacific and Santa Fe Railroads and the Standard Oil Company, and a few more by outside companies carrying oil in California. There should be at least 2,000 cars to do the business. The railroad is using a large number filling its own tanks, and there is frequently a shortage for commercial purposes. The California Petroleum Miners' Association has been trying for two weeks unsuccessfully to get two tank cars to send to Washington for the purpose of testing California oil in the naval furnace there for use on our national ships. Whether this condition will be relieved after the completion of the pipe-line which the Standard Oil company is now building from Kern County to Point Richmond, on the Bay of San Francisco, is problematical, as they will require a large quantity of oil for their great refinery, which is about completed at that place. It is assumed that they will be able to transport from eight to ten thousand barrels per day through the pipe. This pipe-line is eight inches in diameter and 278 miles long.

The cost of transporting oil from Kern County to San Francisco is now about 40 cents, including switching, etc. I doubt very much whether a lower cost of transportation will particularly help the producer, but it certainly must the consumer, as he is the man to pay all costs of production.

#### THE LIFE OF THE WELLS.

The next thing to take into consideration is the life of the wells. The life of an oil district depends upon the number of proven acres and the depth of the oil sand. Experts contend that about 20 percent of the sand is oil, and that about 80 percent of the oil contained in the sand can be recovered; consequently, in a district where the sand is 300 feet thick, there should be a little less than a half million barrels to the acre, or a patch of 20 acres, roughly speaking, should give 8,000,000 barrels. It is claimed by many of the most careful experts that about 10,000 acres in these four districts, viz.: Kern River, Sunset, Midway and McKittrick have been proven; by proven we mean that wherever on these acres you sink a well you will most probably get oil, so that if you have 10,000 acres of land, with sand 300 feet thick, (the real fact is that on a great deal of the above lands the sand is over 500 feet thick) we ought to have close to half a million barrels to the acre, or allowing for first and second-class land at least two thousand million barrels of oil, so there is no need of this generation worrying much whether it will last our time.

#### GREAT PRODUCTIVE CAPABILITIES

Mr. H. L. Dort, a very careful and over-cautious expert in those fields, writes me as follows: "A careful consideration of the demonstrated area of these Kern County oil fields, the thickness and oil-containing qualities of the sands, justifies the belief that they contain considerably more than 1,000,000,000 barrels of oil, and possibly twice as much. The total oil production in the United States, from its discovery up to the discovery of the Kern County oil fields, is estimated by the most competent authorities at about 1,000,000,000 barrels, and this county alone may eventually produce more than this amount, and in a form, as a cheap fuel, the most necessary factor to the development of the Coast's manufacturing and transportation industries, and very necessary to the mining, agricultural and domestic interests, which will redound more to the general advantage of the State as a whole than any other of its natural resources."

These figures may seem large, but when you take into consideration other great oil districts, Baku, in Russia, for instance, which has produced 75,000,000 barrels annually for a great many years, and an expert from there, who was recently inspecting our lands, told me he considered them equal to those at Baku. We certainly ought to believe him. When asked what the lands in Baku were worth, he said \$50,000 an acre. I leave you to draw your own conclusions.

#### OIL REFINERIES.

The number of refineries reported



last year was eleven; this year I have to report thirty-three. These refineries make asphalt, lubricants, distillates and coke. The amount of asphalt imported from foreign countries last year was 154,729 long tons. California produced last year 21,634 long tons of the value of \$315,219, according to the report of Mr. Lewis E. Aubury, State Mineralogist. This year we ought to produce 35,000 long tons. For the purpose of competing with the foreign supply we should have a protective tariff on asphalt and lower freight transportation. At the present time the railroad charges \$11.00 per ton to Missouri-River points.

#### OIL SUPERSEDING COAL.

Coal importations from foreign countries have dropped off nearly one-half the past year, as the following letter from Mr. J. W. Harrison, coal expert, shows:

San Francisco, Cal., Nov. 8, 1902.

DR. C. T. DEANE, Mills Building, City.

Dear Sir: The total arrivals of foreign coals from Australia, England and Wales for the first nine months of 1901, foot up 749,943 tons. The quantity imported here from the same sources for the first nine months of 1902 foot up 440,023 tons, showing a shrinkage this year, for the same period of time, of 309,920 tons.

The prices for bituminous grades, imported principally from Australia, will average about \$6.00 per long ton in cargo lots. For anthracite coal from Swansea, the average cost per cargo will be about \$7.75 per ton.

The quantity of foreign coal now afloat en route to San Francisco, is less than has been known for many years.

Yours truly,

J. W. HARRISON.

This shows that we have kept in the State \$2,169,440 which otherwise would have gone to foreign countries. The importations of domestic coal have fallen off more than 25 percent.

There is a great deal of talk about the present prosperity in San Francisco. This is largely due to the discovery of oil. Manufacturing has been encouraged by the low price of fuel oil, costing about 75 cents to the consumer, equal to \$3.00 per ton for coal.

Dividends from oil properties have amounted during the past two years to over two million dollars. This sum, together with the money retained, which would otherwise have gone out of the State for coal, has instead gone to swell the capital accumulating with the banks all over California, helping to boom the market for realty and investments, which has been so active and buoyant of late.

#### OIL IN ORE REDUCTION.

It has not yet been demonstrated that iron ore can be smelted in commercial quantities with oil, although it has been done as a laboratory process, but there are many who believe that it is only a question of time when this will be accomplished; but even of coke, we will have a goodly supply at probably reduced figures when the great refinery of the Standard Oil company gets into operation in a few months from now, as I understand, they will not make asphaltum, but coke.

#### LIQUID FUEL FOR STEAMERS.

It might be well to mention here the successful use of oil as a fuel for marine boilers. There are 200 boilers now using oil in this State. The steamers of the Oceanic Steamship Company are being altered, as the Mariposa running to Tahiti has proven such a success. She is now on her fifth trip, and I understand that the owners save in the

neighborhood of \$200 per day. The Pacific Mail is also inquiring into the advisability of using oil on its steamers. One important fact has been proven by the use of oil, and that is increased speed is obtained of almost a knot an hour. This is accounted for by the fact that the heat is more continuous and regular for the reason that the furnace doors are not being continually opened for the purpose of keeping up the fires. You hear so much said about oil fuel deteriorating the fired parts of boilers that we have made careful inquiry on the subject from Mr. John K. Bulger, United States Local Inspector of Boilers for this coast, and he reports that the boilers of the steamer Pasadena, inspected by him in August, 1902, and which have been burning oil for the past eleven years, were in perfect condition, also that the boilers of the George Loomis, which have been burning oil for the past eight years, and which were inspected in November, 1902, were the same, there being no signs of crystallization showing on any of the fired parts.

Lieutenant Ward P. Winchell, United States Navy, in his report to the Navy Department in regard to the success attending the use of oil for fuel on the first trans-Pacific trip of the steamer Mariposa to Tahiti, said: "The most careful inspection at Tahiti failed to show any bad effect of the flame upon the boilers."

As to the safety of burning oil in marine boilers we have simply to say that the insurance companies have not raised their rates on oil-burning steamers, which answers that question thoroughly.

#### OIL ON ROADS.

The dusty-road nuisance will be a thing of the past in a few years, due to sprinkling with oil, and railroad travel in this State will be made much more agreeable. The general manager of the Santa Fe system, Mr. A. G. Wells, informs me that they have oiled 666.5 miles of their roadbed to their great satisfaction, and we are reliably informed, although not officially, that the Southern Pacific have oiled over three hundred miles of theirs. The several counties in the State are oiling their roads, and find it 50 percent cheaper than water. As a local object lesson we have the drives in our beautiful Golden Gate Park, which have been oiled now for over two years, and the public are enthusiastic as to the result.

There are about 5,000 barrels of oil a day coming to San Francisco by rail. Reliable statistics of what comes by sea are not obtainable.

#### OIL IN MANUFACTURING INDUSTRIES.

Another point upon which I wish to dwell is the increase which has taken place of late in local manufacturing industries. The 12,000,000 barrels of oil which will be consumed this year represent in fact 3,000,000 tons of coal. This is fully one sixth more than the total amount of coal ever before consumed annually in this State. This can be ascribed solely to the enlargement of the manufacturing interests brought about by the decline in the cost of fuel, and, had it not been for the discovery of oil in California, manufacturers would never have been able to branch out as they have done the past two years, in a way which not only enables them to hold their own with their Eastern rivals, but to enter the field as competitors.

#### INVESTMENT OF FOREIGN CAPITAL.

There are a number of foreign syndicates quietly buying our oil lands, while our own rich men hesitate to make the same investments. An English gentleman, the agent of London capitalists, told me they were selling five dollars' worth for 25 cents down in Kern. There are a number of English, French and Belgian companies now in existence, which few people in this country ever hear of, and two of these companies that I know of are paying dividends. The oil business is so new to us that our business men do not as yet appreciate its importance; when they do, they will have to pay much larger prices for land than they can get it for today. Proven oil lands are selling from \$500 to \$5,000 an acre. These lands could have been bought two or three years ago readily at \$10 an acre. In a few years they will sell for three times the price they are selling for now.

#### COST OF PUMPING.

The cost of pumping oil varies according to the number of wells. A large number, say ten or twenty, ought not to cost over 1.5 or 2 cents per barrel (42 gallons). I know of one exceedingly well-managed company which has reduced the cost to 1 cent a barrel.

#### DEPTH AND COST OF THE WELLS.

The wells in Kern River, Sunset, Midway and McKittrick average from 900 to 1,200 feet in depth, and ought to cost, barring accidents, about \$5,000 each to sink. This does not include the rig.

#### CONSERVATIVE FIGURES.

The above is briefly an account

of the oil lands of California from a commercial point of view. All the figures are absolutely conservative and the California Petroleum officially. As I said last year, the California Petroleum Miners' Association will vouch for them. This Association feels that in making statements of the kind quasi-public as they are in character, they should be as correct as a government official report, free from misstatements or exaggerations, calculated to mislead. I have, therefore, been particularly careful in collating facts, and when it was possible have had them verified Miners' Association desires to be free from any suspicion of attempting to boom an industry which is abundantly able to stand on its own merits.

The address of Mr. Alfred von der Ropp was as follows:

Mr. President, and Gentlemen of the California Miners' Association:

Through your secretary, Mr. E. Benjamin, I received a request to prepare a short paper "On the Use of Crude Oil in Smelting." This I have endeavored to do, confining myself entirely to the practical side of the subject, and leaving the discussion of heat units, chemical composition of liquid fuels, combustion-gases, etc., to our more scientific friends—the professors of the universities and technical schools.

Fuel oil for the generation of steam is not my subject, and you all are no doubt familiar with this problem. However, let me state to you, that at the Selby Smelting and Lead company's works, we use liquid fuel exclusively for the

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I wish to mention right now that I am not interested in any oil wells or oil stocks, and am not attempting to boom liquid fuel.

The following metallurgical furnaces use crude oil at our works at Selby: 4 roasting furnaces, with a total of 11 burners; 1 matting furnace, with three burners; 1 copper furnace, with 1 burner; 14 lead furnaces with 14 burners; 13 zinc retorts, with 13 burners; 3 cupel furnaces with 3 burners; 1 antimony furnace, with 1 burner; 1 furnace for melting fine silver, with 1 burner. Total, 47.

In all of these furnaces, the use of crude oil has brought about a saving of from forty to sixty percent in the cost of fuel over coal. And this does not represent all the benefit to be derived from the use of liquid fuel in metallurgical establishments.

Let me quote you a few simple chemical re-actions that you all are more or less familiar with, and which are of vital importance to all metallurgical institutions.

In the process of oxidizing sulphide ores, commonly called roasting, or desulphurizing, it is necessary that the atmosphere in the roasting furnace should contain as much free oxygen as possible to enable the sulphur in the raw material to oxidize or burn off in the shape of sulphur di-oxide (S. O. 2.), and sulphur tri-oxide (S. O. 3.). In using coal as fuel it

is impossible to maintain this oxidizing atmosphere all the time, because, every time that fresh fuel is fed to the firebox, black gases can be seen to fill the interior of the furnace, and during this period of incomplete combustion the process of roasting, or oxidizing, is absolutely at a standstill. What happens? A certain amount of fuel and time are wasted, and nothing is accomplished.

Now look at the ideal conditions prevailing in the roasting furnace when liquid fuel is used. Once the flame is regulated, by properly adjusting the oil and steam inlets, we have a clear flame, with not a trace of soot in the roasting chamber; and this ideal condition continues for twenty four hours per day, enabling the sulphur in the ores to combine with the oxygen in the air during every fraction of a second. This means that we can crowd a roasting furnace using oil far beyond the capacity of a furnace using coal, and still we can produce a good end roast with the same percent of sulphur remaining. This means that we reduce the cost of fuel, labor, and repairs per ton or ore treated. In all metallurgical furnaces where the aim is to oxidize, these same benefits are to be derived from the use of liquid fuel. I quote you, for instance, the cupel furnace, where the lead is oxidized to litharge, leaving the silver and gold on the hearth, or test, as dore silver.

But let me mention the matting furnace, of the reverberatory type. In this furnace the roasted ore is subjected to a white heat to produce a quick sintering and melting down of the charge. The aim in this furnace is to produce, first: "a copper-iron matte, which acts as an accumulator for the precious metals," and, secondly, "a slag which is formed from the earthy components of the ore." As matte is a compound of sulphur and heavy metals, (mainly copper sulphide and iron sulphide) in fixed proportions, it is self-evident that the percent of copper in the matte depends on the amount of sulphur remaining in the charge.

Suppose now that we use coal as fuel in the matting furnace, we will have a reducing atmosphere whenever the fireman gets busy and fills the grate with fresh fuel, thus producing an incomplete combustion for a certain length of time. During this period no sulphur can be oxidized by the oxygen of the air. With oil we have an oxidizing atmosphere during every second, and consequently we find that we produce a higher grade copper matte in a furnace using liquid fuel than we can possibly produce in a furnace using coal. On the other hand, if it should be desirable to have a reducing atmosphere in metallurgical

work, it is easy to change from an oxidizing atmosphere to a reducing one in an instant; by either choking the air inlet to the furnace, or increasing the flow of oil to the burner. This leads to the oil burner proper.

There have probably been two thousand patents granted for oil-burners, each claiming remarkable, and even most surprising results. For instance: some inventors claim that their burners will generate hydrogen. When asked to explain this, and how they expect to benefit the kind people by this most remarkable reaction, the usual answer is, "the heat decomposes the steam into oxygen and hydrogen; and there you are." In their eagerness to praise their burners they forget that plus and minus balance fairly well in nature, and that it would take exactly the same amount of heat to disassociate water into its component parts, namely, hydrogen and oxygen, as would be generated by combining or burning the oxygen and hydrogen so generated, minus

a liberal amount of heat wasted by radiation.

When deciding to use liquid fuel, it is necessary to decide whether steam or compressed air shall be used as an atomizer. Let me call your attention to the fact that the use of compressed air necessitates a compressor, and an apparatus for preheating the compressed air. This latter appendix is very much to be recommended, because as you know, in allowing compressed air to expand the temperature of the surrounding air will be lowered. A cold or nearly freezing temperature will not be beneficial in atomizing liquid fuel preparatory to obtaining complete combustion. Steam, on the other hand, carries a certain amount of heat to the oil, and liquifies and even gasifies the same. Of course, all this pertains to plants on terra firma. On board a steamer it is different, where water has to be carried along, or sea water is to be distilled, in

(Continued on page 6.)

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..NOVEMBER 21, 1902

The California Petroleum Miners' Association has issued a very valuable bulletin, the third in the series. It contains the important and interesting paper, read by Dr. C. T. Deane, secretary of the association, before the eleventh annual convention of the Miners' Association, held this week in San Francisco on "The Use of Crude Petroleum from a Commercial Standpoint." It also contains the names of those persons and firms of San Francisco granted permission to use crude oil for fuel purposes, and the list of steamers, hailing from San Francisco, burning oil. There is also much other valuable matter. The bulletin can be obtained by writing Dr. Deane, at his office in the Mills building.

An idea of how oil for fuel is gaining favor in the eastern hemisphere is afforded by Manchester, the seat of England's great cotton manufactories. The London Petroleum, an oil publication, says: "It seems to us that Manchester has more quickly and clearly than any other part of the country gauged the opportunities offered by the commercial centers of the Midlands for the full development of a trade in liquid fuel. Through Manchester a number of companies have decided that the fuel business of the Midlands can be focused. Consequently, petroleum has become a real live question, and is reckoned among the most important commercial topics of the place. Nowhere else can we see so many signs of a spirited effort to grapple with the storage and distributing problems of the business.

"All this is quite in keeping with the eternal fitness of things. Nothing is more natural than that

Lancashire, chief home of the manufacturing classes, should welcome a new industry that will feed its thousands of furnaces with a cheaper and a better fuel."

That Manchester, situated so near the great coal mines of Newcastle, should supersede that fuel with oil is most remarkable. It is literally almost a case of "carrying coals to Newcastle."

## UNDERGROUND FLOW.

### A Supreme Court Decision of Interest to Oil Men.

Southern California having long since applied successfully for irrigation purposes all accessible surface waters, has been exploiting underground sources, and a crop of lawsuits has resulted. The courts have been called upon to decide an unusual and interesting issue between Riverside and San Bernardino counties, and the ruling of the Supreme court is of some concern to oil producers in that it decides the rights of underground flow.

The Riverside Water company takes a great volume of water from artesian wells near San Bernardino, which is also supplied by artesian wells, situated higher up. When the Riverside wells were started, the flow in the San Bernardino wells ceased, or was greatly reduced, and the city of San Bernardino applied to the courts for an order to have the Riverside wells capped so that San Bernardino might retain the water which naturally belongs to it. The lower court refused the order on the showing of the petition, but the Supreme court has just reversed the decision and remanded the case to be tried on its merits.

The effect of the Supreme court's decision seems to be that if the trial court finds that the lower wells impair San Bernardino's supply they must be capped. The interests involved in this case are enormous. If the owner of lands on which artesian water is developed can not sell the water to be taken to another's valley, where it would not naturally flow, a great part of the Riverside orange groves will be destroyed.

The interesting question arises, how will this decision effect a possible issue between two adjoining and rival oil claims? Suppose oil wells driven on a claim tap the flow from the wells on an older claim, would this water case decision be quoted as a precedent, requiring the owners of the more recent claim to cap their wells?

### Price Now Eighteen Cents.

According to the Bakersfield Californian the price of oil can be said at the present date to be not lower than 18 cents per barrel. That is the figure for which the Standard is willing to take the product and pay spot cash for it. At the rate of advance noted during the past few months, it is not out of bounds to hope that by the new year or a little later, a price that will be eminently satisfactory to the producer will prevail and still be within what, in comparison with coal, the consumer can well afford to pay.

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## ANNUAL CONVENTION.

(Continued from page 5.)

which case I should prefer to use air under pressure.

As the dimensions of metallurgical furnaces are variable ones, you will readily understand that we need flames of many different sizes for our metallurgical tools. For instance, at Selby, the extreme lengths of flames used are eight inches and six feet. In the zinc retorts, which are our smallest furnaces, we need a flame of eight inches. In the large matting furnace, 35'x16' in the clear, we need a flame of six feet or even more in length. The burner has to be adapted to the furnace, and to the work to be performed. Hence you will find at metallurgical establishments a great variety of burners, or at least a great variety of sizes of burners, and I know of no better all around burner than the one formed of two concentric pipes, the smaller one being the oil pipe, and the larger one the steam carrier. By this arrangement the oil pipe is steam jacketed, and the temperature of the oil is raised to such a degree that its fluidity is very much increased, and part of the lighter oils become gases. All this tends to break up more or less the viscous oil into minute particles, which ignite readily when brought in contact with the oxygen of the surrounding atmosphere.

The following advice to future users of oil as fuel may not be amiss in concluding this paper:

First. By all means engage an expert to install your plant, and do not experiment yourselves, as it costs money to do so.

Secondly. Do not use a mixture of different gravity oils.

Thirdly. Do not use a mixture of heavy residues with light oils from the oil refineries, as this mixture will not remain mixed. Oil refineries are very fond of mixing heavy residues with some light oils, thus producing an oil of the gravity corresponding to the one contracted for.

When making a contract for liquid fuel insist that nowhere in the contract shall appear the words "fuel oil," but call for crude petroleum of a certain gravity, and insist, if possible, on getting the crude petroleum from wells producing very near the same gravity of oil. Suppose you contract for "fuel oil" of, say, 20° gravity; (and not for "crude petroleum") it is possible, and also probable, that you will receive a fuel oil of 20° gravity, but you will not always receive crude petroleum at 20° gravity. The refiner has a perfect right by this contract for "fuel oil" and not "crude petroleum," to send you a mixture of residuum of, say, 10° gravity and a distillate of crude oil of 35° gravity in such proportions that the mixture will show 20° gravity. This mixture will be pumped into your storage tanks, and in a very short time the heavy and light ingredients will separate. At the bottom of your storage tank you will find lumps as big as 10" to 12" in diameter; and on top you will find the light oil, or distillate. These lumps, which the refiners term B. S., (I refer you to them for an explanation of this, to me an entirely new and unknown chemical formula), will enter your pipes and burners, and will stop your oil's system up very effectively. Another point

that should be observed in making contracts for crude petroleum is the percentage of moisture and grit allowed in the oil. Two percent is a liberal allowance to be made to the seller, and if the crude oil contains more than two percent water and dirt a proportionate deduction should be made from the oil received.

A very simple test for the determination of the grit and water in crude oil is the following: Place in a graduated tube or cubic centimeter of the oil to be tested; add to this or cubic centimeter of gasoline; shake this mixture well, and let it remain in a fairly warm place for twenty-four hours. By that time the water and sand, being heavier than the gasoline and crude oil, will have settled to the bottom. By counting the cubic centimeters that represent the water and grit, which are easy to be distinguished from the oil, you have the percentage without any figuring.

During the last few years I have been repeatedly approached by parties asking me why I do not use oil in the blast furnace, and the only answer I can give them is the following: Solid carbon plays a very important role, especially in the upper level of the blast furnace shaft. Its function, especially with the fine ores, is largely to limber up the charge and allow the flow of gases to penetrate the charge evenly; besides incandescent carbon has certain functions to perform in the blast furnace, which are of a chemical nature, and which need not be discussed in this paper. If coke or charcoal should be entirely replaced by oil in the blast furnace, the blast furnace charge would very likely become too dense to allow the combustion gases to escape freely. Besides, it seems to me, there would be considerable danger from explosions if oil should be used as a fuel in blast furnaces. However, I think it may be possible to replace part of the solid carbon fuel with liquid fuel, but am not prepared to state at this time what percentage of liquid fuel could be used, or what mechanical arrangements should be introduced for the use of liquid fuel in the blast furnaces.

ALFRED VON DER ROPP,  
Supt. Selby S. & L. Co.

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Address all communications to the Company at its Home Office.

### To Whom It May Concern.

Boulder, Colo., Oct. 6, 1902.

This is to certify that O. H. Jones, the oil locator of Los Angeles, Cal., located a well for the Otero Oil and Gas company in the Boulder, Colo., oil fields in May, 1902; that the same was drilled in to oil September 1, at a depth of 1,765 feet; that since September 3 we have been pumping 100 barrels per day. This was not near any other producing well.

F. J. CRETCHER, Director.



## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

The Alaska Development company has bonded 70,000 acres of Alaska oil lands to an English syndicate for \$2,500,000, on the condition that the syndicate shall spend \$50,000 a year in development work. Oil was struck on the lands at a depth of 220 feet, the liquid shooting forty feet over the top of the derrick. The lands lie in the Copper river region.

#### ARIZONA.

Phoenix people are bestirring themselves to promote prospecting for oil in that section. A local company has been formed to further prospecting near the Camelback mountains, twelve miles from Phoenix. Near Florence the indications of striking oil soon are considered favorable. At that point a prospecting well has been sunk to a depth of 160 feet.

#### CONTRA COSTA.

The Berkeley Crude Oil company has been drilling on well No. 2 for two months, but has only got down about 250 feet.

#### FRESNO.

There is more talk in the Coalinga field of the necessity of a pipe-line than anything else, and it is said that the Standard has agreed to lay a line to its main Bakersfield line, 18 miles, provided the field will guarantee a supply of at least 1,000 barrels a day of refining oil, similar to the 29° oil of the California oil fields, Ltd., is getting from four of its wells. When this amount of production is assured there will be no further lack of pipe-line facilities.

#### KERN.

The Clark refining company is running full time, turning out distillates,

asphaltum and briquettes. The latter branch seems to promise large returns.

Among the companies operating at the fields the chief activity is reported at the Monte Cristo property.

Another blow-out at the McKittrick camp has slightly decreased the production of its wells. The damage is not serious, however, and repairs will be completed shortly.

The Standard has begun the construction of three large earth reservoirs for storage purposes in the Kern River field. A close estimate makes its storage capacity here 128,562,500 gallons.

The Standard Oil company has a large camp of men at work constructing its immense reservoirs, which cover some 350 feet of ground, and are sixteen feet in depth with a capacity of 385,000 barrels.

The Peerless has decided to renew development on a large scale, and is about to begin a large water well for the purpose of drilling. It is said that it has agreed to furnish the Standard a much greater quantity of oil than it is now supplying.

The Lion Oil company has just purchased half a mile of 3-inch pipe with which it will connect its wells with the terminal of the railroad at Sunset. When its pipe-line is completed, it will begin marketing oil. It is reported to have closed a number of contracts which will net the company 18 cents a barrel at the well.

A prospector brought into Bakersfield a black, greasy piece of rock. Upon careful examination, it proved to be a piece of pitchblende, from which uranium, the base of radium, is extracted. The metal is worth \$300,000 an ounce.

Investigation is now being made to ascertain whether there is any considerable quantity of this metal where the sample came from.

The Kern Oil company is about to begin development on its property of 160 acres at Kern River in the immediate future. This property is on 28-28. The company sold three hundred acres of its land to the Associated Oil company but will not await action by the latter but will proceed on its own development and begin the shipment and sale of oil at the earliest possible moment.

The Maricopa Oil company has secured permission from the supervisors to construct a pipe-line along the county road from Maricopa camp on section 1-11-24 to the terminus of the Sunset railroad. The distance is in the neighborhood of one and one-half miles and the intention is to deliver oil at the shipping point until such time as more direct communication is opened up to the markets for the petroleum product. The company will shortly build a 4-inch pipe-line and by this means deliver its product at the railway.

The Societe Anonyme Belge des Petroles de Kern (Californie), better known as the Belgium Oil company, will next week begin to ship oil to San Francisco from its wells Nos. 1 and 2 in the McKittrick district. No. 1 was completed last March and No. 2 struck oil only a week ago. A conservative estimate by the management places the yield of each well at 150 barrels, or one carload a day. The crude product will at first be marketed for fuel, but later on it will be sold to the refineries as it contains a high percentage of lubricating oil. As soon as the two producing wells are thoroughly completed, the pumps set going smoothly, and the weekly shipment of two carloads of oil steadily maintained, the company will drill other wells thoroughly developing its McKittrick holdings.

#### KINGS.

The Williams Asphalt Mastic company has been incorporated. Principal place of business, San Francisco. Directors: H. F. Williams, W. H. Worswick, H. J. Leric, W. R. Williams and W. H. Coke. Capital stock, \$100,000; subscribed, \$500.

T. and L. Robinson, who have been sinking a two-inch well on their ranch on the northwest of 5-22, 22, 20 miles south of Hanford have met with thriffling success. The new well is 272 feet in depth and cost about \$200. They have a flow of water that rolls out 18 inches above the casing, and they also have a good supply of natural gas.

#### LOS ANGELES.

The Consolidated Crude has leased its properties to Allen Craig, the drilling contractor.

The Murphy company, Whittier, is producing 1,200 barrels daily, with some of its wells capped. In four weeks it shipped 100 carloads of oil.

A fire November 19 damaged the Hercules Oil Refining company's plant \$25,000. Twenty-five hundred barrels of distillate and 500 barrels of asphaltum were destroyed. The origin of the fire was believed to be due to the dripping of the rain on the hot liquid in an asphaltum tank, causing an explosion.

#### NEVADA.

The narrow-gauge railroad running between Colfax and Nevada city, is to use oil fuel on its locomotives.

#### NEW MEXICO.

A telegram from Santa Rosa, New Mexico, states that oil has been struck in the well of the O. K. Crude Oil company, and that when the water is cased off the well will contain 100 feet of oil.

#### ORANGE.

The Santa Fe has commenced work on its thirty-ninth well. It is located on the hill back of the Fullerton Oil company's property and due south of No. 36, which is now drilling with every prospect of being a good producer.

#### SAN DIEGO.

The mayor has signed an ordinance authorizing the purchase of apparatus for sprinkling the streets of San Diego with oil. The plan has never been tried there. When an effort was made to provide for use of oil instead of water on the streets several years ago, much antagonism to the movement was found to exist, and it was abandoned.

# THE ELK HORN CONSOLIDATED OIL COMPANY

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## SAN MATEO.

The Fountain Oil company has erected another rig on the southeast corner of its big tract of oil lands and will start to drilling at once.

Mr. Guiberson has put in a new gasometer at the Purissima wells to utilize some of the abundant natural gas for domestic purposes.

Seepage and gas have been encountered in the well of the Pilarcitos Oil company at a depth of 300 feet. Drilling is still going on at a good rate.

Messrs. Botts & Parker of the High Gravity Oil company are steadily at work on well No. 3 and are down to a good depth. This well is in a very promising location and when oil is struck in it a tremendous flow is expected.

Sallee, Hayne and Guiberson are down some 1,200 feet on well No. 5, but have not yet struck a flow of oil although this hole is only a short distance from one of their best producing wells. This is accounted for by the incline of the formation.

It is impossible to obtain the exact facts in regard to the strike made in the well of the Wisconsin company. It is known, however, that a large body of oil has been struck and that all the tankage obtainable is being utilized. President J. E. Kerr will say nothing except that matters are in a very satisfactory condition. No one is allowed at the well.

## SANTA BARBARA.

The Pinal Oil and Development company is reported to have 80 feet of oil in its 1,270-foot well on land close to that of the Western Union.

The discovery has been made in the Summerland Oil district, that a great amount of damage has been done and is being done to oil wharves by the teredo. The wells there are sunk through the water of the oceans from long, and, in many cases, none too stoutly built wharves. It is the piling of these wharves that the teredo is attacking. One oil company has started the work of repairing the damage. Some piles were so eaten away that the weight of the pile driver snapped them off. Several other wharves are in urgent need

of repair and one operator is talking of putting in an iron wharf.

The refinery of the Columbian company is now running. The tanks, holding 1,500 barrels, are kept full of Summerland oil, and the asphalt well is now being pumped to its fullest capacity. The deep asphalt well is now going down, and work has been begun on another hand-dug shaft which will reach a very large deposit of liquid asphalt located near the refinery. This deposit is known to lie at a depth not exceeding 200 feet, and has previously been struck by drillers in search of oil who were forced to abandon the well on account of the rapid accumulation of asphalt. The refinery, when worked to its full capacity, will soon be turning out 40 tons of refined asphalt a day, besides a large quantity of lubricating oil. The number of products will be steadily increased.

## SANTA CLARA.

The Orchard Crude Oil company, drilling on its fourth well near Los Gatos, has reached a depth of over 1,000 feet. The drill is now in clay and much of a formation similar to that encountered in the McKittrick field just previous to striking oil. A large interest in this company has but recently been purchased by some experienced oil men from Kern River field, and they feel very much pleased over the indications, and are certain oil will soon be struck.

## SOLANO.

The Solano Prospecting and Developing company has been organized with a capital stock of \$25,000, all of which has been subscribed. The object of the company is to develop the Rochester Oil company's land for natural gas and salt. The latter company sank a well 1,800 feet, finding no oil but striking an abundant flow of gas and salt water.

## TEHAMA.

At Corning, W. N. Woodson has contracted for a 1,200-foot hole to be driven in the expectation of striking a flow of artesian water, gas or oil. If a strike is not made at the depth stated, the hole will be sunk deeper. The money is up, the contract made, and work was commenced Monday morning of this week. Artesian water and natural gas were

struck some time ago in Tehama county at Tuscan Springs.

## TEXAS.

The Spindle Top is now producing 52,000 barrels of oil daily. Many wells that are good producers, which have been idle on account of the gas being so troublesome, have recently been placed in producing attitude, thereby increasing largely the total daily output.

## The Electric Road.

The affairs of the Bakersfield and Ventura Railroad company have advanced so far that it has been decided to adopt the block system, which means that the line will be trolleyless. The surveys are all made, the rights of way from Ventura and Hueneme have been secured, the work of tracklaying will be begun by New Year's, and it is expected that the line will be in partial operation inside of eight months. The road will be 165 miles long from Ventura to Bakersfield besides several miles of siding.

## Personals.

George Quarre, manager of the Belgian Oil company, left the city Wednesday for McKittrick on his regular monthly inspection of the company's oil wells.

C. W. Ayres, president of the Columbia and Crescent Oil company, was in the city this week to attend the Knight Templars' banquet and to purchase machinery for a new refinery to be erected by the company at Carpinteria.

R. H. Herron, of the R. H. Herron company, was up from Los Angeles this week as a delegate from the southern part of the State to the eleventh annual convention of the California Miners' Association.

## A Snap

if taken advantage of at once.

A Standard oil well boring outfit complete. Now situated in the Colusa field FOR SALE CHEAP or open to other propositions of great advantage to the right party. For particulars address, P. O., Box No. 132, Corning, Cal.

## Plowing Asphalt.

In the Indian Territory, where all sorts of things are done that were never heard of elsewhere, they are plowing asphalt, says the Kansas City Star. Eighteen miles southeast of the Comanche, in the Chickasaw country, six strapping Missouri mules are hitched to a big plow every day and long furrows of asphalt are turned. It is the same kind of a plow the farmers use who break ground in the blackjack country, and the asphalt is the kind got by blasting on the island of Trinidad. The mules are plowing in the center of a deposit one-third larger than the asphalt deposits on Trinidad. Wells have been dug to the depth of 100 feet. Strata of asphalt of varying thicknesses have been encountered to whatever depth the wells have been sunk.

## Oil Saved Dollars.

In the days when coal was used for fuel, the Santa Fe tug in taking a barge from the company's slip in this city to Point Richmond consumed between \$6 and \$8 in coal. Now that oil is the fuel expense for making a trip under like conditions is less than \$1. This statement is made on the authority of the engineer.

## State Dredgers to Use Oil.

The two State dredgers employed in San Francisco are to be fitted up as oil-burners at an early date. The new dredger now being constructed, and which is to be completed early in the coming year, will also be an oil-burner.

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Oil Stocks Soaring  
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## A BIG DEAL IN OIL.

### The Western Union Gives an Option for \$1,250,000.

The Pacific Oil and Transportation Company Buys 9,000 out of 10,000 Shares of the Stock at \$125 per Share.

Probably the most important trade in oil in California since the sale of the Petroleum Development company's Kern river property to the Santa Fe railway several months ago, is the transfer of the entire holdings of the Western Union to the Pacific Oil and Transportation company of San Francisco. The actual cash involved is \$1,425,000.

Details of the transaction were made public by J. S. Slauson, president of the Western Union Oil company, who had given William Matson of the Pacific Oil and Transportation company the option to purchase 9,000 shares of the entire capitalization which is 10,000 shares.

This option was given by eight of the nine principal stockholders of the Western Union Oil company, including J. S. Slauson, H. Jevne, W. H. Hellman, J. D. Bicknell, W. H. Perry, A. H. McKay, H. W. Wollacott and Thomas Hughes, who pooled their stock, granting the option until April 1, 1903, the price agreed upon being \$125 per share, or at the rate of \$1,250,000 for the entire holdings of the Western Union. The only large stockholder not in the pool is J. D. Hooker, who preferred to retain his interest in the company.

In addition to the stock of the Western Union a similar option was granted the same interests on the capital stock of the Los Flores Land and Oil company, practically owned by the same parties. The property of this company adjoins that of the Western Union, and the consideration named is \$175,000.

The holdings of the Western Union Oil company consist of the principal oil-producing territory of the Santa Maria oil field in Santa Barbara county—eight producing wells and many valuable contracts.

Captain William Matson, President of the Pacific Oil and Transportation company, confirms the report that his company has an option on the Western Union. He states that the oil company now has eight flowing wells producing 1,500 barrels a day, and that the number will be increased to eighteen by April first.

The Pacific Oil and Transportation company has a pipe-line thirty-nine miles long, tapping the oil fields and terminating at the seaboard at Alcatraz Landing. So the purchasing company is already well-equipped to handle the output, and will not be hampered in its operations for lack of transportation facilities. It will in no wise

be dependent upon railroad companies and tank lines.

While the cash has not yet been paid over, the option extending to April 1, 1903, the sale is as certainly made as though the cash had actually been paid.

### ON THE ATLANTIC.

#### Passenger Steamers Beginning to Burn Oil.

Ship-owners on the Atlantic have not been so quick to supersede coal with oil as fuel as have been the owners of vessels employed in the Pacific ocean trade. But the Atlantic folks are awakening to the economy and advantage of using crude oil for fuel instead of coal.

This is evidenced by the fact that the Standard Oil company has placed an order abroad for twenty-one tank-carrying steamers, and another great fleet of steamships for the oil-carrying trade between New York and Texas is underway in the shipyards at Brooklyn. One company is now building there three tank steamers with a capacity of 22,500 barrels of oil. Two other vessels are being transformed by the same company, which will have a capacity of 50,000 barrels each. A second company is transferring into oil-carrying vessels at the same yards two steamships of 1,450 tons burden. The British Queen, which was nearly destroyed by the Hoboken fire, is now nearly ready to carry 40,000 barrels of oil. Shipowners are at a loss to explain the sudden demand for oil-carrying craft, but generally ascribe it to a movement to go into the Texas trade and a tendency to equip Atlantic steamers with oil-burning furnaces.

The first steamship consuming oil for fuel to leave an eastern American port started out from Brooklyn, November 10th. She is the converted tank steamer, Julia Luckenbach, of 4,000 tons capacity. Her fuel capacity was 40,000 gallons of crude oil and 150 tons of coal. The latter was taken to be used in case of emergency, and was required by the underwriters. It will be employed in the donkey engines for lifting deck appliances, which will be equipped with oil engines next trip. She will reach Sabine Pass in six days, going about 14 knots an hour, to bring back a cargo of 26,000 barrels of Texas fuel oil to deliver to a gas company on East Eleventh street, New York.

The Red Star steamship Kensington claims the distinction of being the first passenger steamship that ever crossed the ocean with oil for fuel under one of her boilers. The Kensington left

Antwerp October 25th and reached her pier at Vesey street, New York, November 4th. She carried 133 cabin and 666 steerage passengers. Other vessels have crossed the Atlantic with crude oil for fuel, but they have been exclusively oil-carrying vessels.

### A GREAT SAVING.

Oil for Fuel to be Used all Over the Santa Fe.

A Santa Fe official, in speaking of the economy of using oil for fuel on the railroad system, says:

"On our gulf division alone, the saving being made is at the rate of about \$300,000 per annum, and, with the steady increase of the number of locomotives equipped for oil burning, we expect during the coming year to secure an economy on this division alone of over \$500,000.

"For our California lines we have a long time contract for crude oil with the Kern river companies at a price considerably below that now quoted for oil. Besides this, the development of our own oil property is progressing satisfactorily, and our savings on the coast lines will be as much or more than that on the Gulf division. The service that has been secured by the use of oil has for the most part greatly exceeded our expectations, and it would not surprise me if oil ultimately became the fuel of the entire system."

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

### A Good Run.

Although Tim Spellacy has been defeated for the office of railroad commissioner in a district hopelessly Republican he made a most creditable showing, and his vote must be highly gratifying to him. His majority in Kern county was by far the largest ever given to a candidate for a State office in Kern.

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Send for sample copy of the "Pacific States Investor," an up-to-date financial paper.

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## A BONANZA INVESTMENT

### The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4½ CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

## THE AMERICAN INVESTMENT CO.

2 KILBY ST., - - BOSTON, MASS.



## California Stock and Oil Exchange.

NOVEMBER 19, 1902.

Dullness has characterized the Exchange for the past week, and only a small business has been done in either oil stocks or local securities.

With one exception—Peerless—the quotations on oil stocks stand almost unchanged from a week ago. Peerless has slowly but steadily advanced, and \$9.00 is now freely bid, with \$10.00 asked. A few sales have been made at \$9.25 and as high as \$9.50. This company, unlike others, has from time to time issued to its stockholders full and complete reports of its work in the field, including its production and deliveries, together with a balance sheet showing its assets and liabilities. There are companies—lots of them—whose directors for reasons best known to themselves, are not particularly anxious to throw their books open to the public, but there are others who have nothing to fear, and who might—and undoubtedly would—inspire confidence in the public by rendering monthly or quarterly statements of their field operations and financial condition. A word to the wise is sufficient.

Home is slightly lower, several lots (including one of 1,000 shares on Monday) selling at \$2.75. There has been considerable dealing in Monte Cristo at \$1.7½, with a few sales at \$1.70.

It looks at present as though holders of certain stocks wishing to realize had made all the concessions they care to, and rather than make further sacrifice intend to hold on to them. At the same time many of the would-be purchasers seem to think that "bed-rock" has not yet been reached. Which side of the question is the right one, time alone will prove.

Trading in local securities during the week has been of small volume. Sugar stocks continue firm.

### Wanted

5,000 burners by a California refinery for a superior grade of stove distillate. Submit propositions to P. O. Box 427, Bakersfield, Cal.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, November 19:

CLAIRMONT.			
400 at \$ 15.....			\$ 60 00
FOUR.			
1,000 at 50.....			500 00
HANFORD.			
1 at 87 (S 90).....			87 00
HOME OIL.			
2,100 at 2 75.....			5,775 00
700 at 2 80.....			1,960 00
JUNCTION.			
600 at 09.....			54 00
4,400 at 08.....			352 00
600 at 10.....			60 00
MONARCH.			
1,000 at 17.....			170 00
MONTE CRISTO.			
300 at 1 10.....			330 00
2,015 at 1 07½.....			2,166 12
PEERLESS.			
50 at 9 25 (S 30).....			462 50
50 at 9 50.....			475 00
STERLING.			
300 at 1 52½.....			457 50
100 at 1 52½ (S 30).....			152 50

THIRTY-THREE.	
10 at 7 50.....	75 00
13,526 Shares	Amount \$13,136 62
ABBEY LAND & IMP. CO.	
110 at 1 10.....	121 00
ALASKA PACKERS.	
5 at 161 00.....	805 00
HONOKAA SUGAR.	
10 at 13 50.....	135 00
HONOLULU SUGAR.	
25 at 22 00.....	550 00
NORTHERN CAL. POWER CO.	
50 at 8 00.....	400 00
PAAUHAU SUGAR.	
60 at 16 00.....	960 00
SPRING VALLEY WATER.	
30 at 85 25.....	2,567 50
10 at 85 50.....	855 00
300 Shares	Amount \$6,393.50

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## J. S. EWEN

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318 PINE STREET, Room 5

SAN FRANCISCO, CAL.

TELEPHONE MAIN 1552.

### J. B. HILL

Member Producers' Oil Exchange  
Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
Member of Producers' Oil Exchange and of San Francisco Stock and Exchange Board

### Joseph L. King.

ROOM 3, SECOND FLOOR, MILLS BUILDING,  
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### Joseph B. Toplitz

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Telephone Bush 385, 330 PINE STREET  
San Francisco, Cal.  
Reference: California Safe Deposit and Trust Company, S. F.

### NOTICE OF ASSESSMENT.

LOMA PRIETA PRUNE RANCH COMPANY,  
Location and principal place of business  
San Francisco, California. Location of ranch,  
Monterey County, California.  
Notice is hereby given that at the meeting of the Board of Directors held on the 10th day of November, 1902, an assessment of five (\$5.00) dollars per share was levied upon the capital stock of the corporation, payable immediately in United States Gold Coin, at the office of the Secretary, 333½ Washington St., San Francisco, California.  
Any stock upon which this assessment shall remain unpaid on the 10th day of December, 1902, will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on Friday, the 9th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.  
By order of the Board of Directors.  
FRANK MORTON, Secretary.

50 Percent a year. How to make it. Write J. D. Johnston, Newport, R. I.

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MEMBER CALIFORNIA STOCK AND OIL EXCHANGE  
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Telephone Bush 385

Bank Reference: California Safe Deposit & Trust Company, S. F.  
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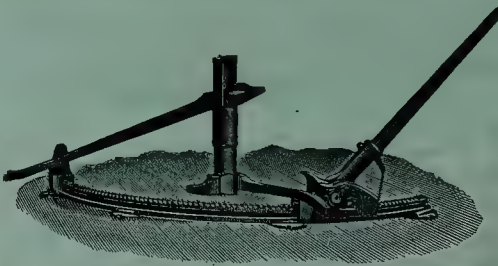
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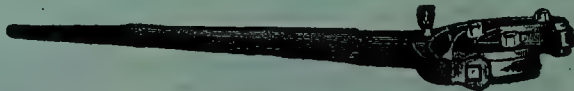


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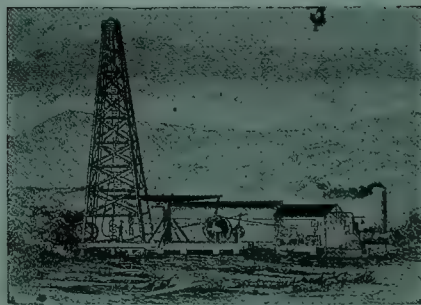
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## RUSSIAN PETROLEUM

The Yield Greater than that of the United States.

Since the year 1897, Russia has produced more petroleum than the United States, according to the United States Report on Mineral Resources for 1901. Beginning with 1897, the Russian production has been increasing by an average of over 12 percent each year to the close of 1901. In round numbers, the figures of production in barrels for the two countries are as follows:

YEAR.	RUSSIA.	UNITED STATES.
1897.	54,000,000	60,000,000
1898.	62,000,000	55,000,000
1899.	66,000,000	57,000,000
1900.	76,000,000	64,000,000
1901.	85,000,000	69,000,000
Total.	343,000,000	255,000,000

The average annual increase during the five years for Russia has been 12.57 percent; for the United States, 2.89 percent—there having been a small decrease in the production of the United States in 1897, and a larger decrease in 1898.

The facilities for handling the large Russian production are at present crude, costly and wasteful. The markets are far away from the production. The main foreign shipping port, at Batum, on the Black Sea, is separated by mountain chains from the chief center of production, Baku, on the Caspian Sea. To bring the oil to the seaboard, 400 miles of railroad must be traveled to the terminus of the pipe-line, and then 160 miles still remain before reaching Batoum. The capacity of the pipe-line is almost double the capacity of the railroad, so that the amount taken to Batoum depends upon the capacity of the railroad. The Volga river is an outlet for 80 percent of the production, and reaches many miles into the heart of the Russian empire. But the Volga is frozen up for several months in the year, and is subject to months of low water stages in the summer and fall.

The total exports of petroleum, crude and refined, from Russia to foreign ports in 1901 were 428,657,210 gallons, or 40.33 percent of the exports of petroleum from the United States in 1901, which amounted to 1,062,750,306 gallons, valued at nearly \$71,500,000.

The very great difference between the petroleum of the United States and Russia is shown in the statistics of refined petroleum. Of the world's total production of crude petroleum in 1901, 165,385,733 barrels, the United States produced 69,389,194 barrels, or 41.97 percent, and Russia produced 85,168,556 barrels, or 51.49 percent; and yet of the total production of refined petroleum of all grades in 1901, estimated at 1,500,000,000 of all countries, the United States produced 911,120,944 gallons, or 60.7 percent, and Russia 414,122,990 gallons, or only 27.7 percent.

## THE MIDLAND PACIFIC.

\$2,000,000 In Bonds Will Be Taken in New York.

E. P. Vining, who early became interested in the project, going over the proposed route personally, has been in New York for some time, and lately received assurances that \$2,000,000 will be invested in bonds of the company, payments to be made in ten monthly installments, beginning next February. Says the Californian:

This promise is made dependent upon a freight guarantee of 5,000 barrels of oil per day, and recently this has been secured. The companies nesting about the discovery made by the Monarch, together with others in that portion of the Sunset field, have formed an association for combined delivery of oil, and they will set over to go by way of the Midland about three thousand barrels, or enough to make up the amount required.

Still, the agents of the Midland do not propose to rest content with all that is necessary but will endeavor to obtain further shipping contracts, which they can undoubtedly do. The peculiar advantage to be gained by the Sunset producers is likely to cause the companies of that district to encourage a road to the coast to the fullest extent, for in the event that such a road is built, their position in the market will become almost commanding. They will be able to deliver oil at a price which producers in other fields cannot touch.

## Oil Dividend Declared.

The Four Oil company declared a dividend of 1 cent per share, amounting to \$3,000, payable November 15th.

## NEARLY 200,000



## Smith-Premier Typewriters

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97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

The Smith Premier Typewriter is used exclusively by the Telegraph Department and the Sunset Freight Department of the Southern Pacific Railroad Company.

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School lands may be taken from 100 to 240 acres. Lands abundant in all counties in State. They require no condition as to residence on land or cultivation, and carry all minerals and deposits, only \$1.25 an acre. Easy terms. Fortunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and Cheapest speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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## CYGNET PETROLEUM CO

Capital.....\$150,000

Location—Fresno county.

Directors—Chas. I. Fair, president, Blitz W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McElroy, secretary.

Office—561 Parrott Building. Tel.—South 184.

## POTOMAC OIL COMPANY.

Capital stock, \$2,350,000; Par value, \$1.00. Has 2,000 acres in Kern, Los Angeles and Summerland fields, with 30 producing wells. Officers and directors: P. V. Schermerhorn, president; C. H. Ritchie, vice-president; R. D. Robinson, secretary and treasurer; D. M. Schermerhorn and W. S. Morton. Principal office, Potomac building, Los Angeles, Cal. Tel. John 2281.

## STANDARD ROCK OIL COMPANY.

Capital.....\$500,000

Treasury stock.....\$50,000

Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.

Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.

Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Ensign.

Offices: 475-76 Parrott Building, 855 Market street, San Francisco, Cal.

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Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

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Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Capitalization 500,000 Shares at \$1 par Value.

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 4.

SAN FRANCISCO, CAL., NOVEMBER 28, 1902.

Price 10 Cents.

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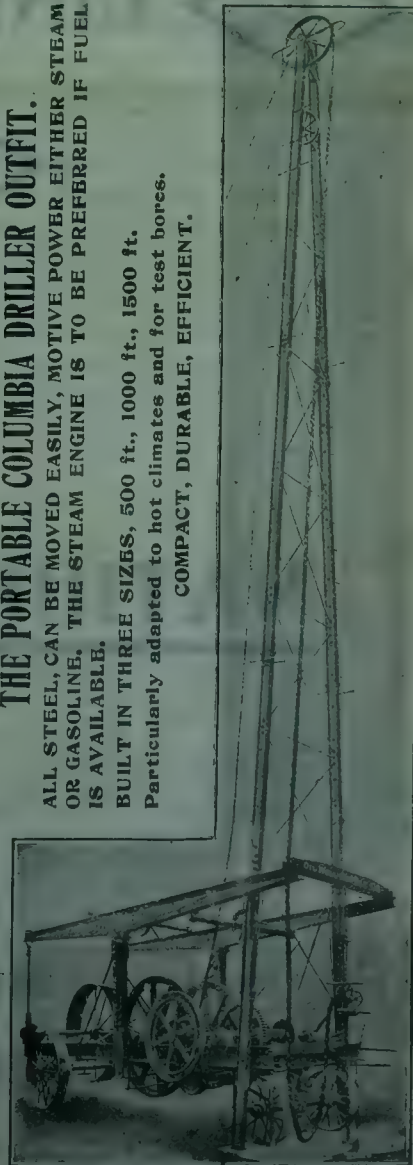
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Particularly adapted to hot climates and for test bores.

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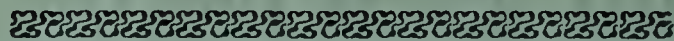
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**For sale by Jobbers of Oil Well Supplies Throughout California and the Pacific Coast.**



# PACIFIC OIL REPORTER

VOL. 4. No. 4.

SAN FRANCISCO, CAL., FRIDAY, NOVEMBER 28, 1902.

PRICE, TEN CENTS.

## BONDS OF THE ASSOCIATED.

### Union Trust Company Neither Guarantees Payment of Principal or Interest.

#### The Conditions of the Trust Mortgage Such That It Is Extremely Unlikely Any Individual, Bank or Corporation Will Purchase the Bonds.

The Associated Oil company has executed a trust mortgage to the Union Trust company of San Francisco.

Some seem to think that this means the Union Trust company has practically agreed to loan the Associated Oil company money to the amount the mortgage calls for, and has in reality purchased or agreed to purchase the issue of bonds, taking as security the property of the Associated Oil company.

That this view of the matter is taken by many holders of shares of different companies included in the Associated is shown by the many letters received by the PACIFIC OIL REPORTER, and for this reason this paper desires to give to the public the fullest information possible in regard to the much-vexed bond question now so much in evidence in regard to the Associated Oil company, which seems to be in serious difficulty not only as to finances, but also as to the means which will enable it to produce the millions of barrels of oil it has contracted to deliver for the next five years at prices far lower than those prevailing at the present time, and fully 50 percent lower than what the price will be two years or even one year hence.

If the Associated expects to be relieved from its present uncomfortable plight by the early and satisfactory placing of the bonds for which the Union Trust company is trustee there is every reason to believe the directors of the Associated will meet with disappointment as it would seem that with the existing provisions in the documents no individual or bank or corporation would consider for a minute the advisability of advancing money for the purchase of these bonds.

The amount of the mortgage is \$5,000,000.

There are 5,000 bonds of \$1,000 each, running from August 1, 1902, for a period of twenty years, the entire issue not to be payable until August 1, 1922. The bonds are to bear interest at the rate of 8 per cent per annum, but 3 percent of this interest is provided to

pay the mortgage tax, if same is levied upon the value given herein to secure the bonds. This would leave 5 percent as the real interest on the bonds, exclusive of the possible mortgage tax.

The coupons are payable 2½ percent on the 1st of February of each year, and 2½ percent on the 1st of August of each year, and a 3 percent coupon on April 1st of each year. But in any year, prior to April 1st of that year, in which the Associated Oil company produces proper tax receipts, showing that they have fully satisfied any mortgage tax that may have been collected on the value of this mortgage, or in case, during such year, no mortgage tax is levied upon the value of this mortgage, then, all the 3 percent coupons attached to this issue of bonds for such year are to be surrendered to them, without any payment whatever.

A default in the payment of any interest, extending for ninety days after such payment is due, makes all the bonds in default and due and payable, but in case of such default, a majority of the holders of the bonds then issued and outstanding, is requisite to cause the trustee to take possession of the property and operate the same for the benefit of the bond-holders, or to foreclose the mortgage and sell the property and distribute the proceeds pro rata to the holders of the outstanding bonds. A majority of the bond-holders may, also, at any time, waive any default occurring under this mortgage.

The sinking fund provided under this mortgage calls for the payment, beginning on July 1, 1904, and continuing each year thereafter, in the sum of 5 percent of the amount of all bonds issued and outstanding on the 1st day of July each year. The sinking fund shall first be applied to paying any interest that may be in default on such outstanding bonds, and if, in case of default, there are not sufficient funds in the sinking fund to pay interest on all the outstanding bonds, then such interest shall be paid pro rata. If there is no default in interest, the

funds in the sinking fund shall be used from time to time to redeem any outstanding bonds that may be offered for sale at or below 105; and if no bonds are at any time, or from time to time, offered for sale at or below 105, then such sinking fund shall be invested, from time to time, by the trustee under this deed of trust or mortgage.

The stocks in all other companies owned by the Associated Oil company are included in this deed of trust or mortgage, but until any default in interest is made, the Associated Oil company has the right to collect all dividends declared on said stocks and to receive the full beneficial use of same.

The Union Trust company distinctly states on page 11 of the printed trust mortgage that all the recitals contained therein are made on behalf of the party of the first part, and that the Union Trust company assumes no responsibility as to the correctness of any statement contained therein; that they shall have no responsibility as to the validity of the deed of trust or mortgage; nor as to the execution, or acknowledgment, or recording thereof; nor as to the amount or extent of the security afforded by the property covered by the deed of trust or mortgage, and that they shall not be in any way liable for the consequences of any breach on the part of the Associated Oil company of the covenants therein contained, or for any other act or thing thereunder, except its own negligence.

Summing up the whole matter and the security offered by the Associated Oil company for this \$5,000,000, it seems that upon the payment of interest on the outstanding bonds each year and the payment of 5 percent into the sinking fund; in other words, 5 percent for the sinking fund and the possible 8 percent interest on the coupons, amounting to 13 percent, they could each year take from the property, without any limit whatever, and divide all the proceeds as dividends; or in other words, they could continually deplete the value of the property by removing the oil therefrom; and if there were a sufficient market for the oil, they could, within 5 years' time, drill and operate a sufficient number of wells to completely exhaust the oil contained in the property. If they paid for that period of 5 years the 5 percent into the sinking fund and the 8 percent interest, they would have legally the right to declare dividends out of all the proceeds of the property, and at the end of that period of

time hand over a property drained of all its value, with whatever plant it may have thereon, and still act within their legal rights.

There is also a provision in this mortgage that two thirds of the holders of outstanding bonds at any time can suspend the operation of the sinking-fund clause for the 5 percent payment, for a period not exceeding one year at any one time. This provision and also the provision making it necessary that a majority of the holders of outstanding bonds is necessary to take action in case of any default, conclusively shows that the small bondholder has no rights whatever except such as the majority choose to give him.

On a mortgage on mining property (and oil properties are of this class) where the actual substance of the security is being continually taken from the ground and not being replenished, thus constantly reducing the security, a sinking fund of 5 percent per annum is certainly totally inadequate as a provision for ultimate payment of the bonds. Houses, lands and manufacturing properties have a renting, earning and producing power that is practically continuous and thus afford a basis of security, even where the current yearly revenues above interest are absorbed. But a mining property from which the oil is once taken has no power of reproduction and as no limit is placed upon the quantity that may be removed in any one year, it would hardly seem that the present mortgage affords any adequate, or satisfactory, security on which to base the issue and sale of these bonds and assure their final payment.

## NEW STYLE OF TENDER.

### It Will Carry Both Oil and Water for the Locomotive.

The Southern Pacific has turned out from its Sacramento shops a new style of tender, one designed to carry both fuel oil and water for the locomotive. Only one has been built as an experiment. If it stands the test, every oil-burning locomotive will be furnished with the new style tender. The tender is semi-cylindrical in shape and has a capacity of 3,300 gallons of oil and 7,300 gallons of water—enough of each for 300 miles of travel at high speed. Practical railroaders, among them Chief Foreman Russel of the West Oakland yards, are confident that it will prove a success. If it does, it will work a great economy in California and Southern railroading. Oil and water stations will be needed only at intervals of 200 or 300 miles, which will be of especial advantage in desert stretches where water is to be had only at great difficulty and expense.



## NATIONAL OIL REFINERY.

### A Plant On the Bay Shore That Is Making Lots of Asphalt.

#### The California Asphalt a Successful Competitor in the East Over the Imported Trinidad Product, Both as to Quality and Price.

The National Oil Refining company's refinery, completed last April, is located at Rodeo, Contra Costa county, on the shore of the bay.

The works are new, and so far the operations have been largely in the way of experimenting and making tests preliminary to running to its full capacity. At present the refinery treats 350 barrels of crude oil a day, yielding 15 tons of asphaltum of any desired grade.

There are four stills of 250 barrels capacity each. Should the company desire to make asphaltum alone, it could treat 1,000 barrels of crude a day, or produce 50 tons of asphaltum. This, however, it does not care to do, inasmuch that it extracts from the oil not only asphaltum, but valuable distillates, neutral oils, green lubricating oils and kerosene, for all of which there is a market close at hand in San Francisco.

Coalinga oil has so far been

handled mainly, though the product of other fields will be treated as opportunity offers. The company has valuable wells of its own in the Sunset district, but has not tried to refine any of the oil from that section while transportation matters are unsettled.

Coalinga oil yields about 25 percent of asphaltum, a much lower percentage than that given by the heavy oils of Kern county, where 45 or 50 percent of the crude is asphalt.

The National is able to manufacture asphalt as cheaply with the low percentage Coalinga oil as Kern county refineries can with their high percentage oil because it has a market for the by-products, while in Kern county the residuum is largely unmarketable and much of it is thrown away.

The National has been quite successful in marketing its asphalt in the East. The Trinidad product has been in favor there so long, it has been hard to introduce the California product, even

though it be better than that of Trinidad. For years large contracts have generally specified that Trinidad asphalt shall be used.

The California product must beat down and overcome this prejudice, and on its merits win a standing and reputation in the East which will create a demand for it in the markets there. The California asphalt is superior to that of Trinidad, which has about 45 percent of earthy matter, sand and clay. The latter ingredient is particularly objectionable and cannot be removed. The asphalt from the California refineries is absolutely pure, and the desired percentage of sand can be added easily and accurately.

While the refinery produces asphaltum of absolute purity, its value depends upon how it is treated. If it is overcooked, heated to too high a temperature, it becomes like gilsonite, losing its elasticity and tenacity.

The matter of successfully treating asphaltum at the refinery is one of scientific skill and judgment, requiring care and watchfulness from the start. In the experimental runs made by the National, there has been a constant aim to turn out the very best asphaltum possible, and the company believes that it has now the facilities and the expert laborers and firemen which assure it that none better can be made than that produced at its works.

The company has sold asphaltum to advantage in Chicago, New York, and Boston and has received testimonials that the California product was more satis-

factory than the Trinidad.

The freight charges to the East are about \$12 a ton in carload lots. The company views with favor the agreement which has been entered into by the manufacturers of asphaltum in regard to fixing the selling price. Aside from the great advantage of maintaining prices at a point assuring a reasonable profit, a great benefit is to be derived by enabling the refiners at some future time to establish a selling agency in New York to handle the entire California product that may be shipped to the East.

By doing so sufficient quantities may be shipped at one time to charter a sailing vessel and ship a whole cargo by sea. Heretofore shipments have been made only in carload lots. By sea the freight charges would probably be \$6 a ton, just half what it is by rail. Assuming that the vessel would be six months on the route from San Francisco to New York and allowing 8 per cent interest for the six months on the capital that is idle while the shipment is in transit, and providing for the insurance of the cargo, the charges to add to the freight of \$6 a ton would not be over 75 cents a ton, or at the farthest \$1. So by shipping by sea instead of rail, the California producer would save at least \$5 a ton, bringing freight charges down from \$12 to \$7 a ton.

In Boston and New York Trinidad asphaltum usually sells at from \$30 to \$35 a ton. At those prices, California asphaltum will yield the refineries from \$18 to \$20 a ton if shipped by rail and \$23 to \$28 if transported by sea.

## A BONANZA INVESTMENT

### The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4½ CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

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**MIDLAND PACIFIC.****Eliminates Objectionable Clause From Contract.**

According to the Bakersfield Californian the Midland Pacific has made another concession to shippers by the elimination of the clause in the contract they are asked to sign, providing that shipments must be made whenever oil is 15 cents a barrel.

The provision is to be stricken from all existing contracts and to be left out of those to be entered into hereafter.

The railroad takes the ground that producers will cause their oil to be transported whenever there is money to be made out of it, whether the price is above or below 15 cents, and they should not be compelled to sell at any stated figure. If it is to the interest of the producer to wait, the railroad can afford to wait, knowing that when business revives it will derive whatever benefit is to be obtained from performing the service of hauling.

As has been stated frequently, all contracts are void in the event that the promoters of the road fail to have work begun and finished within a limited time, and all documents are to be held in escrow by the Kern County Board of Trade until the Midland has earned them by the fulfillment of its propositions.

**RETAIN YOUR OIL LAND.****The Oil Industry on a Solid and Sure Foundation.**

An expert in matters of oil, now in Southern California, has on his tongue's end, "Hold on to your oil lands." He gives reasons for the belief that is in him, as he has come from Texas fields, satisfied that for permanency and revenue-getting California lands surpass all others.

In a recent letter to his Eastern connections this expert wrote:

"Beaumont's big gushers are things of the past. So much any one with capacity to think might have foretold. The millions wasted at \$10,000 an acre and even more, might have been saved. It was a physical impossibility that any field with so great tendency to relieve itself could at the same time remain as prodigious a producer as then. The greater the development the sooner the time was due to arrive when the escape valves in the shape of wells would enable the pressure to subside. The time has come already, within two

years. There is not a gusher in all Beaumont. The best of them are down to a little better than 1,000 barrels a day and some sixty are submerged in the salt water that has come in from the the gulf."

While not too optimistic, he advises holding the lands, as prices now are firmer than in many months, and with the concentration of holdings prices must remain stable. New uses for oil, with the by-products obtained, and the growing demand for asphaltum causes a drain upon the crude product that is being felt. This is evidenced by the reported merging of many refineries and the Standard in California. These are factors in a revival of interest, and with this, large capital will flow into the legitimate lines of the industry.

From reports that are chronicled in the press no oil field in the United States is more stable and productive of results than the proved fields of California. The claim that the oil would end, that the caverns below would be exhausted, and that disturbances would cause the flow to cease, has been eliminated, as years of pumping have served to close the wails of the croakers.

**Oil on the S. P.**

As the number of engines on the Southern Pacific burning oil was increased, it was found necessary to provide stations where oil could be taken on. The oil tanks in course of construction at Susan, Vallejo and Elmira are about completed and ready for the distribution of oil to the engines. Each tank is of large capacity and capable of supplying many engines.

There are now nearly seventy-five oil-burning engines on the western division, and it is estimated that these engines travel a distance all told of over 250,000 miles a month, and that it requires on an average of about 1,000 gallons for every 100 miles. It is estimated that a saving is made on the oil-burning engines over those with coal of about \$16 per 100 miles.

So pleased are the head officials with the oil as a fuel that they are committed to the policy of converting all their engines into oil burners just as fast as the changes can be made.

The San Joaquin division of the Southern Pacific has 108 engines now equipped with oil burners which exceeds the number equipped on any two divisions combined. Only four coal burning engines remain on the division. The total amount of oil consumed on the division last month was 64,831 barrels.

**Oil Found in England.**

According to a report of the Middlesborough Town and Lands company, Limited, oil has been found within twenty-five miles of Middlesborough, and the board have for a long time been anxious that the Middlesborough basin should be tested for this product, of which indications have been found from time to time. The manager says that these indica-

tions are abundant and that in the drilling of a well, at the tannery, oil was actually struck, and had to be shut off by closing the pipe. Early in September last, the manager reported that he commenced negotiations with an oil expert who had examined the land, with a view of forming a local company, with enough capital to start the sinking of sufficient test wells in the valley close to the town.—London Petroleum Review.

# GOLD!

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It is always at par. You don't have to seek a market or discount your goods. You are not subject to the dictation or control of the trusts. For these and many other reasons a good gold property is one of the best investments, and stock in a company having a gold property of proven merit, managed by men of honesty and mining ability, offers to the poor man one of the best avenues to independence. Such a proposition is the

## Hudson Gold Mining Co.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..NOVEMBER 28, 1902

One year ago the PACIFIC OIL REPORTER commenced publishing in tabular form the monthly exports of oil from San Francisco.

For many months the showing made was exceedingly poor, the total exports from month to month averaging less than \$10,000.

This amount has steadily increased, especially during the last six months, until the contrast between the exports of 1901 and 1902 are very encouraging, and show how our export trade in oil is increasing, and how immense is the trade in oil which will eventually be built up between California and the outside world.

In 1901, during the months of August, September and October only 80,601 gallons, valued at \$17,926 were exported.

In 1902 the exports for these same months were 1,559,645 gallons, valued at \$87,756, over five times what they were the year before.

The PACIFIC OIL REPORTER predicts that in 1903, the total exports for these three months will amount to close on to half a million dollars if not more.

California crude oil will soon be shipped in immense quantities not only to Hawaii, but to South America, China, Japan, Australia and elsewhere, and as our refineries increase in capacity and in the knowledge of treating the crude oil their products will be exported in place of those which are now shipped from Eastern refineries, and are the products of Eastern crude.

Even now the California oil industry is in its infancy.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## THE PEEERLESS.

Closes Contract for Sale of Nine-Million Barrels to the Standard.

The Peerless last week closed the sale of 9,000,000 barrels of oil to the Standard Oil company at 20 cents a barrel.

The contract calls for the delivery of 5,000 barrels per day for five years commencing on January 1, 1903, and means the payment of \$1,800,000 at the rate of \$1,000 a day.

The Peerless is already at work preparing to fill this, the greatest order ever received in the history of the oil industry by any one company. At least ten more wells will be drilled immediately, and more will follow as the necessities demand.

The Peerless has 160 acres, every acre of which is producing land, containing 500,000 barrels of crude oil to the acre, or a total of 80,000,000 barrels for the entire tract. Thus far the wells of the Peerless which have been pumped steadily for two years show no signs of diminution of yield.

After the wells are drilled and put on the pump the company will have no further expenses except those of pumping which are very small, the entire cost of pumping from the wells into the reservoirs, gauging the oil, and pumping into the Standard's reservoirs, not exceeding 2 cents a barrel.

This contract leaves a handsome profit to the Peerless company, and will enable the company to pay very large dividends for many years. By July the dividends will be at least 25 cents per share monthly, and this will be increased. The drilling of the ten wells will cost \$40,000, and these completed, one rig will be kept drilling.

The stock is held mostly by the directors of the company, and what little can be had on the outside is being eagerly purchased for permanent investment. It is more than probable that this stock, most of which was sold at \$1 will soon reach \$25 a share if not higher. On Monday 100 shares were sold at \$12.

## THE ENTIRE FLEET.

All Steamers of American-Hawaiian Company to Burn Oil.

The entire freight-carrying fleet of the American-Hawaiian Steamship company will be equipped as oil-burners at the earliest possible moment. The fleet consists of nine steamers. The Alaskan arrived in port from New York November 7th, making the run of between 13,000 and 14,000 miles without stopping her engines but once, and that was when she stopped to take on coal. She has the very best of engines and boilers and consumes forty-five tons of coal a day. The expense for fuel will be cut in two when oil is used. Plans for transforming her into an oil-burner are now being made, but the change will not be made this trip. It will take a couple of months to make the necessary alterations. The space now occupied by coal bunkers will be more than ample to furnish tankage room for oil sufficient to make the trip from San Francisco direct around the

Horn to New York without stopping.

The plan of the company, however, is to take on California crude oil at San Francisco sufficient for fuel to take the steamers of its line to St. Thomas in the West Indies a distance of 12,000 or 13,000 miles. At that point Texas Crude will be taken to feed the furnace fires to New York and back to St. Thomas, where an other stock of Texas oil will be taken on for fuel to San Francisco.

The Arizona, 8,672 gross tons, a sister ship of the Alaskan, is now nearing completion at the Union Iron works. She will be ready for service in about two months. She is being fitted out as an oil-burner. Oil will be stored between the double bottom as well as in tanks.

The vessels of this line will be the first steamers plying between New York and San Francisco to use oil for fuel. It indicates that ship-owners are awakening to the economy of oil over coal, particularly when it can be bought so cheaply at ports of call.

## Standard's Pipe-Line.

On Monday thirteen carloads of pipe for the Standard Oil eight-inch pipe-line which is now building from the Kern River fields to Point Richmond, arrived from the East. With former shipments received there are in the neighborhood of twenty-five carloads of the pipe now lying in the yards at Point Richmond in readiness for the crew of men which began construction operations at this end on Tuesday to span the distance yet to be laid, which is something like sixty miles.

At the present time the pipe-line is progressing this way to tide water at the rate of something like three-quarters of a mile per day. There is a big force of men employed in the work of ditching, cementing the joints, wrapping the pipe and filling in the ditch with dirt after the process of laying is complete.

The Standard Oil officials are very desirous to complete the line before the first of the year and the second crew began work at this end on Tuesday last. When it is finished the big refinery will put on a larger force of men and the capacity of the plant will be taxed to the fullest extent.

Six out of the ten pumping stations to be built on the pipe-line are now under course of construction, but none are yet completed. Those in the southern end of the San Joaquin valley are the nearest toward completion, as work was started from that end of the line.

## PRICE OF ASPHALT.

Agreement Effect Among Producers to Maintain Prices.

The California asphalt manufacturers have come to an agreement to maintain prices. There is no combine or pooling of interests. They have simply agreed to maintain a regular price for the different grades of asphalt. The Mercantile and National of San Francisco and all Los Angeles manufacturers are parties to the agreement. The Union has not joined; it was not even asked, as it has all along refused to cut

prices and has acted in harmony with the Standard.

The agreement does not affect the prices of asphalt shipped to eastern markets. Several refineries have unfilled contracts with eastern purchasers below the established price which they must fill. Besides in the East there is a sharp competition with Trinidad asphalt which must be met and overcome in order to introduce the California product, which is comparatively new to the market. The established price for asphalt in San Francisco is \$13 a ton for D grade. Before the refiners came together, some Los Angeles manufacturers sold asphalt as low as \$7, a price which left absolutely no profit in the sale of the product.

## Ridiculous Assessment.

Men and companies who are trying to hold down oil claims are very active just now, having assessment work done in order to hold claims, but there really isn't any work to do that needs to be done until a casing is to be started, and that is just the thing that most claim holders do not want to do. So they dig holes and fill them up again, or quarry out gypsum and pile it up, or do something equally unimportant which nevertheless satisfies the law. What ought to be done is to allow an alternative of either doing the work or paying the cost of it into some public fund. As the law now stands only labor is benefited, and labor is not much benefited when it is set to work that counts nothing.—Tulare Register.

## Twenty-Seven Cents for Oil.

The best offer for oil made since the slump was that received by a Sunset company a few days ago, says the Californian. It amounted to 27 cents f. o. b. at the depot for 1,000 barrels a day, time one year. It was not accepted, though, for the reason that the company to which the proposition was made was not in a position to deliver, having no pipe-line. The contract was closed, however, by another operator more favorably situated as regards transportation.

## Personal.

R. H. Herron, C. B. Barnes and S. T. Peet, representatives respectively of the Herron company, the National Supply and the Fairbanks-Morse Supply companies, were in Bakersfield last week. Their presence in Bakersfield at the same time was purely accidental, and was probably due to the fact that things are brightening up to such an extent that the trade of the near future will bear close looking after.

## A Snap

If taken advantage of at once. A Standard oil well boring outfit complete. Now situated in the Colusa field FOR SALE CHEAP or open to other propositions of great advantage to the right party. For particulars address, P. O., Box No. 132, Corning, Cal.

## In Canada.

The Ontario Lands and Oil company announces a profit of £3,415 for the past year. After making the dividend on the preference shares up to 5 percent, there remains £415 to be carried forward.



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

The Fifteen Three Oil company has levied an assessment of 2 cents per share.

### ARIZONA

Arizona is not yet listed among the oil-producing areas. It appears that the report of a strike by the Pinal Paraffine Oil company, about thirty miles east of Florence, was premature, to say the least. The company has announced that the report was circulated without authority, stating that while indications are shown by its well, which is now about 1,000 feet deep, no oil has been struck.

### KERN

R. K. Hawk has a good well in the hole he is drilling back of the Dabney lease in the McKittrick district.

The Sunset Crude is about to build a refinery on its lease at Sunset, the plant to cost in the neighborhood of \$15,000.

The Lucky Boy, Midway, will drill deeper in the hope of securing a larger supply. It is judged that the well as it stands is good for fifty or seventy-five barrels a day.

The deepest well yet to be drilled in the Kern river district is one which the Southern Pacific is said to contemplate putting down. The hole will be sunk to a depth of 2,000 feet at least.

Interest is reviving in the Temblor district. The Royal Eagle sometimes since sold three-quarters of a section of land to Chicago parties, who have organized a company upon it, which, according to the terms of the sale, is to do development work immediately.

The Associated upon taking possession of the property of the Comet dismantled the lease, ceasing drilling and the pumping of a number of the wells. It has

lately been hastily placing the lease back in its former condition, however, the fact being overlooked that according to the original agreement, the wells must be pumped continuously and a certain amount of drilling must be done.

Probably the biggest well in the Midway district is that recently finished by the Altoona Midway company and now perforated. It is good for 300 barrels a day. The log of the Altoona shows that the well is 1,194 feet deep. No water whatever was encountered, a source of great danger in many fields thus being absent. Over the oil sand, which is about 150 feet in thickness, lies a topping of 225 feet of impervious clay, very difficult of penetration, but notwithstanding the well was completed with two strings of casing and the inner was suspended on the elevators when the final landing was made.

The Burks Oil company, which has forty acres in the quarter section where the first development of the Midway was made, is now reported to be in good shape, a reorganization having been recently effected by which J. W. Stroud became president. The Burks has the land on one-sixth royalty and by the terms of the lease is not compelled to do further work until the price of oil goes to 50 cents a barrel at the pump. The well contains 126 feet of oil sand and the gravity of the oil is 15°. A test more or less reliable as a basis of estimate, places the well in the 200-barrel class.

Signs of early activity are everywhere manifest and according to reports from dealers in supplies, nearly all the companies which have been shut down during the low price period are preparing to resume. Leases that have been stripped of all machinery and rigs are again to be placed in commission as producing properties and the increase in demand is

to be met with an increase in output. All that seems to stand between the producer and profitable business is the ability of the railroads to handle the amount of oil that will be needed. The completion of the Standard's pipe-line, an event expected to transpire early in the new year, will have a large tendency to relieve this phase of the situation and the probabilities are that the common people who merely pump oil and try to sell it, will not have to stand so long, hat in hand, awaiting the favor of a car.

### LOS ANGELES

In Los Angeles 75 cents per barrel has been declined by producers. Los Angeles oil men watch the Kern River field, basing their prices upon those prevailing there, raising and lowering theirs, as those of Bakersfield go up and down.

### NEVADA

The heaviest engine on the Nevada county narrow gauge railroad has been fitted with oil burners and a trial run made successfully. In due time all the engines along the line will be changed from wood burners into oil burners.

### SAN BENITO

Everything is in readiness to commence work on the Ladd Oil company's rig on the Croton ranch, and work will commence as soon as the fuel arrives.

### SANTA BARBARA

At Summerland there is much consternation over the discovery that the terebo, the deadly foe to wharves and piling, is at work upon the underpinning of the oil wharves.

The California Liquid Asphalt company has contracted to supply the new Potter Hotel at Santa Barbara for two years with distillate for fuel purposes. The amount of the contract is \$24,000.

A large flow of oil was struck by the Pinal company about three miles northwest from the Carreaga field last week. It is impossible to estimate the flow of the well, but it will be many barrels. The oil is of 28 gravity and considered of the highest grade in this section.

Oil of the finest quality has been struck by the Pinal company, who have been drilling in the upper Graciosa canyon for the past few months. The oil

sand was encountered shortly after 1 o'clock, Thursday afternoon, last week, and immediately the oil filled the casing and ran over the top. The oil is of 30° gravity and was encountered at a depth of 1,582 feet. The Western Union experts estimate the well under the present conditions as capable of more than 100 barrels per day.

A peculiar strike is reported in the prospect oil well now being drilled on the Purissima ranch, recently purchased from Judge Canfield. At a depth of 1,600 or 1,700 feet the drill penetrated a stratum of hot clay and the deeper the drill went the hotter was the clay. The drillers were still at work in this mysterious hot-bed, and were prepared to strike almost anything from a hot sulphur spring to a flow of boiled linseed oil. Petroleum already heated for road sprinkling would effect a saving in fuel. The clay steams as it is brought to the surface. The progress of the drillers is being watched with great interest.

At Carreaga the Western Union company has eight wells in oil, all of which have to be pumped in order to keep them from flowing over. The surplus, after supplying the Pacific Coast Railway, the Union Sugar Factory, the Santa Maria Flour Mills, and a number of smaller institutions, is piped from Carreaga to Alcatraz, where it is partially refined and then stored in mammoth tanks preparatory to being shipped to the Orient. The work on the ten new wells recently contracted for continues uninterrupted. Oil was struck in well No. 12 early last week. No. 13 is having the casing put down, and a strike is expected at almost any time. No. 11 has been giving the drillers considerable annoyance, but the difficulties have been overcome, and the drill is making good progress. Drilling on No. 14 commenced this week.

The best reports came from Carpinteria concerning the Columbian Oil and Asphalt company. The refinery is now in full operation and is turning out daily a large output of asphalt and lubricating oils. The company this week completed a system by which the plant is absolutely safe from fire. The company is using Summerland oil and its own liquid asphalt, the result being a very superior quality of refined asphalt which contains all the best qualities of asphalt made from crude petroleum and that

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcole; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 Cents A SHARE

WILL LARGELY INCREASE  
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SHORT TIME.

## 30 Cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

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SAN FRANCISCO, CAL.



made from liquid asphalt. The company has a great demand for its product. The deep asphalt well is now over 1,200 feet deep, and drilling is very difficult on account of the asphalt which runs in so abundantly that it requires constant pumping out, leaving but a very short time at long intervals when the drill can be used. A new shaft is now being dug near the creek back of the refinery, where the liquid asphalt deposits are very abundant. A large area of this valuable land has just been purchased by the company, and adds greatly to the value of their holdings.

The deep well of the Crescent Oil company, on Ortega hill, back of Summerland, is now down over 850 feet, with 7½-inch casing. The drill has already passed through rich oil strata, but the indications are good for something much better below. The Eastern agents of the Columbian and Crescent companies, the American Investment company of Boston, Mass., are well pleased with the present developments and prospects, as is also Mr. J. R. Scupham, of San Francisco, the manager of the companies.

#### SANTA CLARA.

The Orchard Crude Oil company, drilling near Los Gatos, struck a big pocket of gas last Saturday, which sent water and mud 100 feet high. The well is down over 1,000, and oil indications are good. The stock is largely owned in San Jose.

There is a renewal of activity in the neighborhood of Gilroy. James P. Brunton, president of the Alberta Oil company, announces that work will be resumed by the company on the property near Sargent's station. The recent strike made by the Watsonville Oil company three miles west of Sargent's gives the Alberta people more confidence. The derrick for the new well is being put in place. The old well has been abandoned because the casing of it has been struck and cannot be removed.

The derrick for the new well on the Sargent tract is being put in place as rapidly as possible. A large tank, with a capacity of about 200 barrels, has been put above the oil well and at an elevation of 40 feet above the top of the well. A small pipe runs thereto from a plug in the well and the pressure of gas is forcing the

oil into the tank. The flow of oil is fully forty feet above the well, and though it comes through shale and debris in the well, it shows conclusively that there is lots of oil below and gas enough to make the flow a "gusher" if the well was free from debris. The company is confident that the new well will be a "gusher" of several hundred barrels each day when the sand is perforated.

#### SAN MATEO.

The Pilarcitos are down about 400 feet in their first well.

Frick & Parker are working to complete their first deep well on the Tunitas.

The refinery at Halfmoon Bay is again in operation and is being worked to its full capacity.

The Wisconsin well is now over 1,200 feet deep, and the conditions are entirely satisfactory.

J. B. Treadwell has formed a company which is now shipping in a rig to work east of Halfmoon Bay.

The Halfmoon Bay district shows progress in development work by all the companies now operating.

The San Mateo Oil company has not succeeded in getting the lost bit from their well, but has pushed it one side and is now drilling at a depth of over 900 feet.

Guiberson, Sallee & Hayne are fast nearing the completion of their last well and expect to strike the oil stratum any day, when the tools will be returned to well No. 5 which needs cleaning out.

#### VENTURA.

Work is still being pushed on the Priscilla Oil company well on San Cayetano. The well is now about 1,200 feet deep.

Operations, which have been stopped for some weeks on the "Fitch" well on the Santa Paula canyon, will be resumed in a few days.

The Union Oil company are running a string of cleaning-out tools on their Torrey lease. It is their intention to clear out about six wells.

The Weldon Oil company are pulling out the casing in the well which they

abandoned some months ago, and will drill a new well on the Hartman ranch.

The Merchants' and Traders' Oil company are down about 700 feet on the Burson lease near Bardsdale. It is expected they will have to go about 1,400 feet before they reach the oil.

The Olga Ventura Oil company, who brought in a well producing a light grade of oil in Lion Canyon some months ago, have started pumping the same preparatory to starting the drill on a new well.

Well No. 5 of the Saltmarsh Canon Oil company is down about 300 feet, with a good showing of oil. It is expected that the next 1,000 feet will bring in another gusher similar to the last one drilled on this property.

A car load of heavy 5½ casing has lately arrived for the Sulphur Mountain Petroleum company, and they have again started operations. With this string of casing they expect to go in the neighborhood of 2,200 feet when they expect to strike oil.

#### New Incorporations.

The following companies have recently filed articles of incorporation with the Secretary of State:

White Rock Oil company. Principal place of business, Portland, Me. Directors—R. E. Pierce, W. H. Peck, S. Hunt, J. C. Ward and others. Capital stock, \$200,000; subscribed, \$3.40.

Williams Asphalt Mastic company. Principal place of business, San Francisco. Directors—H. F. Williams, W. H. Worswick, H. J. Leric, W. R. Williams and W. H. Coke. Capital stock, \$100,000; subscribed, \$500.

Crude petroleum, which, it is said, contains about 85 percent of high grade illuminating oil and a specific gravity of over 70° has been discovered near Nashua, Ind.

#### Big Russian Oil Fire.

Nearly 3,000,000 gallons of petroleum stored in reservoirs on the outskirts of Odessa, was destroyed by fire recently. The loss was \$4,500,000.

#### Pacific States Mining and Investment Company.

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

Gold bonds furnished to facilitate sale of stocks.

Stock issues underwritten on the American or London plan.

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Oil Stocks Soaring  
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## OIL IN THE PHILIPPINES.

Most of the Islands Abound in Petroleum Indications.

F. H. Oliphant, of the United States Geological Survey, reports as follows concerning oil in the Philippines:

The existence of petroleum is known on most of the islands of this group. The workings are of the most primitive nature, carried on usually by the natives with appliances and substitutes that are surprising in their ingenuity—as is the patience necessary to accomplish the results.

Explorers are busy examining the conditions of the existence and the quality of the petroleum, and the probabilities are that in a few years the petroleum will be one of the articles of export, instead of being, as at present, almost entirely an article of import.

The islands of Panay, Leyte, Gulmaras, Negros, Mindanao, and Cebu are known to contain petroleum. The large island of Mindanao produces some petroleum in the vicinity of Chhattabatto. The island of Cebu has deposits of petroleum at Toledo, on the west coast, associated with coal and natural gas. On the island of Panay petroleum is reported at Janiway, in the province of Iloilo. The island of Leyte is said to have deposits of petroleum

four miles from the town of Villaba, on the west coast.

The position of these islands would indicate the probable existence of petroleum, as Borneo, on the southwest, and Formosa and Japan, on the north, contain productive areas that are extensively operated.

The importation of refined petroleum from the United States is increasing rapidly, the imports for 1901 being more than double the amount for 1900. The value of the importations in 1900 was \$7,921; in 1901, \$119,424.

## TEMPERING DRILLS.

How Crude Petroleum Is Successfully Used in the Process.

An experience in the tempering of drills with petroleum is thus given by Ben Hastings of Chloride, Arizona:

"I have been experimenting lately on the use of common crude oil for tempering drills with such favorable results as to warrant its more extended use. The most serviceable slack tub is found to be a common five-gallon oil can, with the top left as a flap or cover to throw down and smother the flame in case the oil ignites from the hot steel. Provided that the vessel is left open, this ignition, if it does happen, is very quiet, like

that of coal tar, but with the use of a closed tub or tank the accumulated gases are liable to introduce fireworks, as the writer can testify. There is really no necessity for an ignition of the oil, as the proper heat for plunging the steel—a bright red—is a little below the point necessary to flash the oil.

"It is a very rare thing for an oil-tempered drill to break, and they wear much better than water-tempered steel. With oil the amateur will find no trouble in tempering steel to stand like an expert's work, as a slight variation in temperature does not effect such a change in the final condition of the steel as occurs in using water.

"I do not use more than five inches of oil in the bottom of the can. The hotter the oil becomes the better are the results. The consumption of oil is small, principally due to that portion sticking to the drills on withdrawal. Plunging them afterwards in loose dirt cleans them of this."

## Oil for English Engines.

The Northeastern Railway company has erected oil tanks at Gateshead for oil, and experimental runs have been made. These experiments are believed to have been successful, and are likely to be continued.

## Oil Suit Demurrer.

United States Circuit Judge Morrow sustained the demurrer last week in the case of H. F. Bulwer against the Yukon Crude Oil company, Henry J. Crocker, Wendell Easton and others. The suit was brought for alleged fraud in the transfer of shares in several oil companies. Judge Morrow, in sustaining the demurrer, stated that the directors of the Yukon Oil company should have been appealed to through the court. Bulwer appealed to the court direct. The complainant has been granted time in which to amend his complaint.

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## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NATURAL OILS, WITHOUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
	Gallons	Value	Naphtha, including All Lighter Products of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been distilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
August, 1902.										
British Columbia.....							893	\$339		
Costa Rica.....			110	\$18	370	\$63	50	8		
Guatemala.....			310	52	4,700	876	1,490	540		
Honduras.....					3,000	555				
Nicaragua.....							205	45		
Salvador.....					2,400	455	644	244		
Mexico.....					630	113	987	372		
Ecuador.....			160	26						
British Australasia.....							1,661	361		
French Oceanica.....			7,700	1,361	650	122	75	39		
Alaska.....	20,000	\$300	13,970	1,676	2,502	502	1,208	496		
Hawaii.....	630,000	15,000	28,929	3,809	20,360	3,854	15,617	5,445		
Tutuila.....					450	110				
Total.....	650,000	\$15,300	51,179	\$6,942	35,062	\$6,650	22,830	\$7,889		
September, 1902.										
Quebec, Ontario, etc.....	800	\$8								
British Columbia.....	158	9			100	\$23	1,832	\$429		
Costa Rica.....			110	\$19	1,770	275				
Guatemala.....					5,300	1,031	280	99		
Salvador.....					2,167	395	757	229		
Mexico.....					3,710	665	7,176	1,734		
Japan.....							150	57		
British Australasia.....							2,308	577		
French Oceanica.....					450	85				
German Oceanica.....					160	46				
Alaska.....			150	21	7,920	1,231	50	33		
Hawaiian Islands.....	19,052	550	22,894	3,195	15,034	2,880	270	168		
Tutuila.....					300	55	27	14		
Total.....	20,010	\$607	23,154	\$3,235	37,411	\$6,786	12,850	\$3,340		
October, 1902.										
British Columbia.....							156	\$107		
Costa Rica.....					580	\$109				
Guatemala.....					4,550	879	40	20		
Honduras.....					280	61				
Salvador.....					8,811	1,595	50	35		
Mexico.....					550	74	23	8		
Columbia.....					550	80				
French Oceanica.....			9,130	\$1,198	770	154				
Japan.....							742	168		
British Australasia.....							500	112		
Alaska.....					1,650	214				
Guam.....					4,620	872				
Hawaii.....	597,912	\$19,930	44,850	5,086	28,740	5,477	2,625	823		
Tutuila.....					20	5				
Total.....	597,912	\$19,930	53,980	\$6,284	51,121	\$9,520	4,136	\$1,273		

In 1901 the total exports from San Francisco for August, September and October were 80,601 gallons, valued at \$17,926.

In 1902 the total oil exports for the same months were 1,559,645 gallons, valued at \$87,756.



## California Stock and Oil Exchange.

NOVEMBER 16, 1902.

During the past week there has been a marked increase of business transacted in oil stocks, and a general stiffening of prices all along the line.

The following table shows the bid and asked prices of some of the leading stocks a week ago as compared with today:

	Nov. 19		Nov. 26	
	BID	ASKED	BID	ASKED
Bear Flag.....	.09	.10	.11	.12
Central Point.....	.50	.75	.65	.80
Four.....	.50	.52	sales at	.52
Hanford.....	86.00	88.00	90.00	91.00
Kern Oil.....	3.50	3.75	3.75	4.00
Kern River.....	6.00	8.00	6.50	9.00
Lion.....	.04		.05	.06
Monarch.....	.17	.19	.10	.20
Monte Cristo.....	1.07 1/2	1.10	1.20	1.25
Occidental.....	.12	.14	.14	.15
Peerless.....	9.50	10.00	sales at	12.00
Reed Crude.....	.26	.30	.31	.32
Sterling.....	1.52 1/2	1.55	1.65	1.67 1/2
Twenty-eight.....	1.30	1.40	1.40	1.42 1/2

It will be noted that most of these stocks which have registered a decided improvement are not in the Combine.

The "banner" stock of the past week has been Peerless, showing a rise of 20 percent in that time. The 9,000,000-barrel contract at 20 cents fully warrants the advance.

At present prices and monthly rates of dividend now being paid by the following companies, the annual rate of interest on the investment is as follows:

	PRICE	MON. DIV.	AN. INT. PERCENT
Four Oil.....	.52	.01	22 1/2
Home.....	2.80	.07 1/2	31
Imperial.....	16.00	.20	15
Peerless.....	12.00	.08	8
San Joaquin.....	7.50	.05	8
Thirty-three.....	7.75	.10	15

Several of these companies are earning much more than sufficient to pay these dividends and current expenses, but are using large sums in making payments on improvements and development work. In course of time much of this indebtedness will be wiped out and the money available for dividends increased in proportion. Certainly the prospects for some of these stocks look bright.

Trading in local stocks and miscellaneous securities has been light during the week just past. Sugar stocks continue firm, and in several instances an advance has been recorded.

## To Whom It May Concern.

Boulder, Colo., Oct. 6, 1902.

This is to certify that O. H. Jones, the oil locator of Los Angeles, Cal., located a well for the Otero Oil and Gas company in the Boulder, Colo., oil fields in May, 1902; that the same was drilled into oil September 1, at a depth of 1,765 feet; that since September 3 we have been pumping 100 barrels per day. This was not near any other producing well.

F. J. CRETCHER, Director.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, November 26:

### CALIFORNIA STANDARD.

200 at \$ 13.....	\$ 26 00
1,000 at 14.....	140 00

### FOUR.

2,100 at 52.....	1,092 00
1,000 at 53.....	530 00

### GIANT.

100 at 20.....	20 00
----------------	-------

### HANFORD.

9 at 87 00.....	783 00
1 at 90 00.....	90 00

### HOME OIL.

1,000 at 2 75.....	2,750 00
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### INDEPENDENCE.

1,000 at 05.....	50 00
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### JUNCTION.

100 at 10.....	10 00
200 at 13.....	26 00
100 at 14.....	14 00
1,000 at 12.....	120 00

### KERN.

200 at 3 75.....	750 00
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### MONTA CRISTO.

800 at 1 07 1/2.....	860 00
100 at 1 10.....	110 00
3,650 at 1 12 1/2.....	4,106 25
2,100 at 1 15.....	2,415 00
500 at 1 15 (B 20).....	575 00
100 at 1 20.....	120 00

### OCCIDENTAL OIL.

200 at 13.....	26 00
1,200 at 14.....	168 00
100 at 15.....	15 00

## OIL CITY PETROLEUM.

500 at 14.....	70 00
----------------	-------

### PEERLESS.

50 at 10 00 (S 30).....	500 00
200 at 10 00.....	2,000 00
50 at 11 00 (S 5).....	550 00
50 at 11 00.....	550 00
100 at 12 00 (B 9).....	1,200 00
225 at 12 00.....	2,700 00

### REED CRUDE.

100 at 30.....	30 00
2,000 at 30 (S 30).....	600 00
5,100 at 31.....	

### SOVEREIGN.

2,000 at 26.....	260 00
1,200 at 27.....	324 00
500 at 28.....	140 00

### STERLING.

100 at 1 55.....	155 00
300 at 1 57 1/2 (B 10).....	472 50
300 at 1 57 1/2.....	472 50
100 at 1 60 (B 30).....	160 00
300 at 1 60.....	480 00
100 at 1 62 1/2 (S 10).....	162 50
100 at 1 67 1/2 (S 60).....	167 50
700 at 1 67 1/2.....	1,172 50
200 at 1 70 (B 30).....	340 00
500 at 1 65.....	825 00

### TWENTY-EIGHT.

100 at 1 40.....	140 00
100 at 1 42 1/2.....	142 50

30,735 Shares Amount \$2,841 25

### AMERICAN DIS. TELEGRAPH.

18 at 7 00.....	126 00
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### CAL. WINE ASSOCIATION.

20 at 101 50.....	2,030 00
15 at 101 62 1/2.....	1,524 37

### HONOKAA SUGAR.

20 at 13 50.....	270 00
20 at 15 00.....	300 00

93 Shares Amount \$4,250.37

### UNITED STATES 3's BONDS.

1,000 at 108 00.....	\$1,080 00
----------------------	------------

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Notice is hereby given that at the meeting of the Board of Directors held on the 10th day of November, 1902, an assessment of five (\$5.00) dollars per share was levied upon the capital stock of the corporation, payable immediately in United States Gold Coin, at the office of the Secretary, 333 1/2 Washington St., San Francisco, California. Any stock upon which this assessment shall remain unpaid on the 10th day of December, 1902, will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on Friday, the 6th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.

By order of the Board of Directors.

FRANK MORTON, Secretary.

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MEMBER TONOPAH STOCK EXCHANGE

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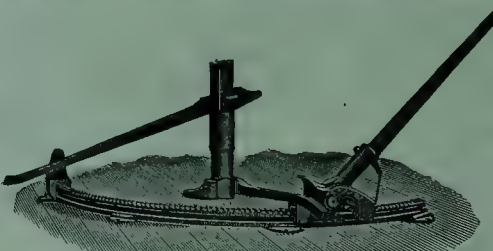
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## EASTERN OIL SITUATION

## Steady Decrease in The Amount of Production.

The Oil City Derrick says that in spite of a very acceptable advance in the crude market, and the heavy demand for Pennsylvania oil, October is behind the preceding month in all departments of field work. While the decline is in no sense a large one, it seems to bear out the assumption that it is impossible any longer to maintain the production of Pennsylvania oil without the opening up of new and unexpected sources of supply. October completed 17 fewer wells than September, and the decline in new production was 776 barrels. At the same time there was a decrease of sixteen rigs and 7 drilling wells in the amount of field operations.

While the Trenton rock districts of Northwestern Ohio reveal an increase in new wells, new production, and new work, Indiana shows a decline in everything except drilling wells. The two districts as a whole completed 23 fewer wells than in September, while the net increase in new production, consequent upon the gains in Ohio, was 64 barrels. The grand total of new rigs is an exact stand-off with September, while there is a gain of six in wells drilling.

Five more oil wells were completed in the Pennsylvania oil fields in September than in August, and there was an increase of over 2,100 barrels in the new production. While the productive wells in all sections of the Pennsylvania oil fields averaged nearly 18½ barrels each in September, the August average was but 13½ and the July 15 barrels to the well. The October wells averaged about 17 barrels apiece. There were 40 more wells completed in the Pennsylvania oil field in August than in July but there was a falling off in the new production. July completed 60 fewer wells than in June and there was an increase of 405 barrels in new production. In October, a year ago, 712 wells were completed and the new production amounted to 7,329 barrels, about 14 barrels to the well when the 175 dusters are eliminated. A peculiar circumstance is noted in the fact that the number of completed wells for October of the current year is exactly the same as for October, 1901.

Operations in the Pennsylvania oil fields suffered a decline of 17 rigs and 6 wells drilling in October. The September operations in the Pennsylvania oil fields revealed an increase of 37 rigs and three drilling wells. August operations made a gain of 27 rigs and 29 wells drilling over those of July and the increased activity was confined almost exclusively to the southwest and southeastern Ohio. July operations suffered a loss of 19 rigs and made a gain of two wells drilling so that there was a net decrease of 17. The new work at the close of October, 1901, was composed of 378 rigs and 653 drilling wells.

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Tel.—South 184.

POTOMAC OIL COMPANY. Capital stock, \$2,850,000. Par value, \$1.00. Has 2,000 acres in Kern, Los Angeles and Sumnerland fields, with 30 producing wells. Officers and directors: P. V. Schermerhorn, president; C. H. Ritchie, vice-president; R. D. Robinson, secretary and treasurer; D. M. Schermerhorn and W. S. Morton, Principal office, Potomac building, Los Angeles, Cal. Tel. John 1281.

## STANDARD ROCK OIL COMPANY.

Capital.....\$500,000  
Treasury stock.....\$100,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. H. J. Ensign.  
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 5.

SAN FRANCISCO. CAL., DECEMBER 5, 1903.

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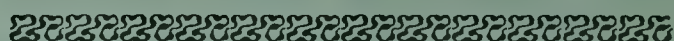
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# PACIFIC OIL REPORTER

VOL. 4, NO. 5.

SAN FRANCISCO, CAL., FRIDAY, DECEMBER 5, 1902.

PRICE, TEN CENTS.

## FLEET OF TANK VESSELS.

**The Number Engaged in Transporting Oil Rapidly Increasing.**

**The Cost of Loading and Unloading Oil Much Less Than That of Coal and the Work is Done Much Quicker and Easier.**

The "Rosecrans," formerly in the transport service, but recently purchased by the Matson Navigation company from the government, is now at the Union Iron works being transformed into a tank-steamer for the carrying of oil from the California fields to various Pacific ports. The alterations will not be completed until sometime in February. She will have a carrying capacity of 23,000 barrels. There is only one larger tank steamer on the Atlantic, the "Julia," which has a carrying capacity of 25,000 barrels.

The "Argyle," 30,000 barrels, will be transformed into a tanker by January 15th and will transport oil for the Union Oil company.

The same company is building the "Lyman Stewart," 10,000 barrels, to be used on the coast trade principally. She will be finished March 15th.

The Pacific Coast Oil company's steamer "George Loomis" has a tank capacity of 6,500 barrels, and is used as a coaster.

The steamer "Ascencion" is now being converted into a tanker, and will be ready for the Pacific Coast Oil company by January 1st. She will have a capacity of 21,000 barrels, and will be able to run anywhere.

Besides these tank steamers are the barges "Santa Paula" which has a capacity of 8,200 barrels, and belongs to the Union Oil company; and the new barge of the Standard Oil company, for use on the bay, and which will have a capacity of 6,000 barrels. This barge will be completed probably this week.

Besides the above steamers and barges are the following tank sailing vessels.

The "Marion Chilcott," owned by the Matson Navigation company, left San Francisco November 7th for Honolulu. It is her maiden trip as a tank vessel. She is equipped with twelve tanks and took on her maiden trip 16,000 barrels of crude petroleum.

The barkentine "Fullerton", belonging to the Union Oil company, capacity 15,000 barrels.

The total capacity of the oil-tank vessels now completed or

approaching completion in San Francisco is as follows:

NAME.	BARRELS.
"Argyle".....	30,000
"Ascencion".....	21,000
"Rosecrans".....	23,000
"Lyman Stewart".....	10,000
"George Loomis".....	6,500
"Santa Paula".....	8,200
"Standard Barge".....	6,000
"Marion Chilcott".....	16,000
"Fullerton".....	15,000
Total.....	135,700



TANK STEAMER "GEORGE LOOMIS."

This was the first tank steamer on the Pacific Coast, and has been used in transporting oil from Ventura to the refineries of the Pacific Coast Oil Company, at Alameda and Point Richmond.

As regards the cost of loading and unloading fuel into and from ships and steamers, the contrast between the cost of coal and fuel oil is very marked.

The cost of loading fuel is usually much less than that of unloading. This is particularly so in the case of fuel oil. As a rule the storage tanks are located considerably above the vessel to be loaded and from two to six large pipes run from the storage tanks to the vessel. Through these the oil runs very rapidly, especially if helped along by powerful pumps, as is usually the case.

A vessel carrying 26,000 barrels of oil can be filled in ten hours or less.

Even if coal is loaded into a vessel by gravity by means of chutes as is sometimes the case, the cost of loading and the time required is much greater than that required for oil.

It is in unloading, however, that

the difference between oil and coal is most apparent, both as regards time and as regards cost.

Oil is unloaded by pumping, and, if necessary, the oil can be pumped from the tanker straight into the storage tanks which may be situated a half mile or more from the wharf as is the case at Honolulu, where the vessel "Marion Chilcott" pumps her oil cargo fully one half mile into the storage tanks.

A collier has to be unloaded slowly and laboriously by means of buckets lowered into the hold of the vessel, filled by hand, raised by steam, and emptied into coal bunkers, whence the coal is hauled by cars or carts where it is desired.

A big oil tanker can be unloaded in eight or ten hours, when from two to four days would be required in unloading a collier.

## THE COAST DIVISION.

**All Its Engines Now Being Equipped as Oil-Burners.**

A general order has been issued calling in all the locomotives on the coast division of the Southern Pacific company to the shops to be equipped with oil burners. The supply stations along the line have been nearly finished and are about ready to supply fuel to the locomotives.

The engines will be called in two at a time and in some cases where it is necessary three engines of the same class will go to the shops to be remodeled. This order was issued recently by the motive power department and it will not be long before all the engines of the division will be equipped in first-class manner. The company recently finished converting the engines of the

Most of the oil thus far transported for use as fuel is of the heavy kind which will average about 336 pounds to the barrel.

Reckoned in tons it costs to unload a tanker between 35 and 40 cents a ton.

A collier is unloaded at \$1.25 a ton. In addition to this should be reckoned an extra expense of \$1,000 a day an account of the tie-up of the steamer of from three to four days longer than is required for the tanker.

From the foregoing it will be seen that not only has there begun to be formed a quite considerable fleet of oil tank vessels on the Pacific coast, but that the expense of transporting oil by sea is far less than that of transporting coal.

The oil situation in California never looked better. The demand for oil is increasing, the price is advancing, and oil stocks are soaring.

Western and Bakersfield divisions from coal to oil burners and will now devote their attention to the engines of the coast division.

The company has met with much success in the use of oil as a fuel, as it not only adds to the comfort and convenience of passengers, but also cuts the fuel bill in two. With oil there are no cinders and with proper regulation there is no smoke.

The Southern Pacific and the Santa Fe are the only roads in the United States that have ever used oil in locomotives and with the success they are meeting it may be adopted as a fuel on the principal Eastern roads.

Experienced engineers claim that they can make faster time with oil owing to the little attention it requires. The fireman can devote himself to other matters about the engine while running, thus insuring greater safety to the train.



## UNSATISFACTORY PAVEMENT

### Terrible Condition of Streets Paved with Bituminous Rock.

#### Marked Difference Between Asphalt and Bituminous Rock Street Pavement and the Great Superiority of the Former.

Several of the most important streets of San Francisco have been paved with bituminous rock during the last few years.

Those not familiar with the kinds of pavements seem to think that pavements made from bituminous rock are the same as those made from asphalt. All pavements look alike to them, and go under the common name of "asphalt."

It so happens that in every instance where bituminous rock has been laid on a San Francisco street which is used for heavy hauling, the pavement has proved very unsatisfactory, and every such street is in a most frightful condition—full of deep chuck holes from one end to the other, making heavy freighting exceedingly difficult, and rendering it exceedingly difficult to drive even very slowly over the street in a light vehicle without breaking springs, rendering a wheel useless, or doing some other damage.

These streets are called "asphalt" streets instead of "bituminous rock" as they should be called.

The result is that asphalt as a pavement is condemned, when the pavement is no more asphalt pavement than it is adobe or macadam. But asphalt gets the blame, and the asphalt industry is done great injustice and receives undeserved attacks and criticism.

What is the difference between bituminous rock and asphalt?

Bituminous rock is a substance that is mined. It is a combination of liquid asphalt which has been forced up from below, generally by gas pressure, through the crevices of overlying shale, and as the liquid asphalt reaches the surface it becomes mixed with the surface deposits of sand, clay, gravel, etc., and forms a layer or succession of layers of various degrees of thickness, from a foot to many feet, and extending over small as well as large areas. This surface deposit is called "bituminous rock," and as such it is mined, brought to the cities, and laid upon the streets as "bituminous rock" or "asphalt" pavement.

The great trouble with this "bituminous rock" is that it is not all of the same grade, even when taken from the same locality.

Some of it is good, some bad. Some contains a greater proportion of asphalt than the rest. In some the asphalt is mixed with sand, while another lot contains a great deal of clay, earth or gravel.

It can be carefully graded so that the quality is about the same, but in order to do this properly great care and no little trouble has to be exercised and it is seldom if ever done. As a result the pavement, when laid, is more

or less spotted with greatly inferior material, which will not withstand the wear and tear of continual and heavy traffic, and chuck holes and broken wagons and carriages are the result.

Asphalt pavement is entirely different from that made with bituminous rock.

Asphalt is made from either crude petroleum or is refined from liquid asphalt.

Until crude oil was discovered so abundantly in California much asphalt was made by refining the bituminous rock, or in other words, by taking from the bituminous rock the sand, gravel, clay, and other extraneous substances which had become mixed with it, and then, by refining the residue, which was practically liquid asphaltum, a refined product was obtained which when properly treated made an excellent pavement superior in every way to that made from bituminous rock. But the process was expensive. The raw material had to be put into the kettles again and again before enough refuse was melted out of it to render the product sufficiently pure.

Now that vast deposits of liquid asphaltum have been discovered, and it is known how to reach them, handle them and treat them, a refined asphaltum ought to be placed on the market, which shall be infinitely superior to any heretofore placed on the market and manufactured from bituminous rock.

It is from the crude petroleum, however, that most of the asphalt is made that is sold in California. The very heavy oil found in the southern portion of the State, containing as it does a large percentage of asphaltum, has been found to be especially adapted for the manufacture of a refined asphalt, which, when properly treated, is found to make a pavement that cannot be excelled.

A pavement made of asphalt instead of bituminous rock ought to contain no "soft spots." It ought to withstand cold as well as heat; it ought not to crack, neither ought it to become soft. It should be able to withstand the heaviest of traffic, and should be as durable as any other pavement. When it wears out it can be replaced quickly and cheaply.

The main things about a successful asphalt pavement are the mixing and the foundation.

If an asphalt pavement has the proper quantities of asphalt, sand, cement, etc., and these are properly mixed, the pavement should be firm and even, having no soft spots, and having no tendency to "crawl," or become wavy, or wear holes.

The proper mixing, however, will be of no avail unless the asphalt is laid upon a solid foundation, thick, firm and smooth, and

having a surface to which the asphaltum covering will adhere.

If asphalt pavement is thus laid there will be, there can be, none of the objections urged against it which can be urged against bituminous rock, and when its value as a pavement is understood there will be no more pavements laid of bituminous rock.

### COAL AND OIL.

#### Theory That Oil Is Coal in a Liquid State.

W. W. Lewis, an old-time oil well man, writes a letter to the Riverside, Cal., Horticulturist, in which he advances the novel theory that oil is coal in a liquid state. A reason for this is that the products of both are the same, viz.: gas, oil, tar, colors, coke, etc. "The first lamp I ever owned," says Mr. Lewis, "was made to burn what was called liquid gas. It was made from coal or shale and afterwards was called coal oil. When oil was discovered in Pennsylvania the manufacture of it was discontinued, as making it from petroleum was cheaper. I am aware that geologists maintain that coal is a vegetable formation, and to prove it state that leaves and trees are found embedded in it. The same argument ought to hold that water or rock are vegetable because trees and leaves are found petrified in them, or we might say that the earth was of animal formation because we find the bones of animals in it. It is not strange that the tree should be susceptible to becoming either coal or rock according to its surroundings. There have been in the world's exist-

ence lakes of oil, asphalt and beds of bitumen, and where the oil has oozed through and run over the surface of the ground, and trees and leaves have fallen into them and become carbonized. In fact, the finding them in coal only proves they did not belong there.

"The process by which oil has become coal, the gasses have evaporated and so the oil has become coal. It does not take long for oil exposed to the sun to become quite thick. It no doubt has taken ages for oil to become coal, but the fact remains that it has done so.

"Geologists tell us that where shale is found at the surface that the coal measure has been removed. Generally this is very true; coal is not found under shale. This proves that the coal must have been in a liquid state, and so was carried off through the veins of the rock, leaving the shale at the bottom, owing to its being nearer than oil, laid there and become petrified into stone. Had it been solid coal it would likely have remained on top of the shale."

### A Saving in Oil.

The steamer Strombus arrived in Boston October 12th from Cardiff, the first steamer arriving at that port coming across the Atlantic and using oil for fuel. The vessel in a stormy passage used 550 tons of oil out of 1,200 tons in store. The owners estimated the saving in using oil instead of coal at \$21 a day, saying nothing about the wages of fifteen fewer men in the engineer's department. The oil cost \$8.75 a ton in the European port.

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## COALINGA PIPE-LINE.

### The Union Oil Company Will Build to Monterey Bay.

Enough Contracts Secured from Large Producers to Assure the Success of an Enterprise That Will Greatly Benefit the Coalinga Oil Field.

At various times there has been talk of a pipe-line from the Coalinga oil fields to tide-water, and now, it would seem that the long cherished hopes of those interested in the Coalinga fields are about to be realized.

For the past few weeks W. L. Stewart, general manager of the Union oil company, the rival of the Standard Oil company, has made frequent visits to Fresno, and has been in conference with the oil producers of that section.

It is learned from an absolutely authentic source that the purpose of his visits was to see what inducement would be offered his company to build a pipe-line from the Coalinga fields to tidewater at Monterey Bay. The inducements the company wants are contracts from the producers to ship their oil by the pipe-line for a number of years. A number of these contracts have already been obtained from the heaviest producers, and if sufficient oil has not as yet been contracted for shipment, it is confidently predicted that it will be obtained without difficulty. The sentiment expressed by a prominent and heavily interested producer in the Coalinga field states the case of all the producers. He said:

"A pipe-line is the only salvation of the industry. The Coalinga district at the present time is corked up tight as a bottle. The railroad will do nothing—that has been demonstrated. There is no longer any reason for hope from that source. The railroad simply will not furnish cars. It is impossible to contract to furnish oil because you cannot count on the ability to move it. A man cannot safely promise to furnish a barrel of oil a day. When the railroad company does furnish cars there is rank favoritism. Out of 188 cars, one of the heaviest producing sections received just eight."

The proposed pipe-line will have its terminus at Moss landing, on

Monterey bay. The undertaking will cost in the neighborhood of \$250,000. The line will be 125 or 130 miles in length, and will follow as closely as possible the county roads, to obviate right-of-way negotiations with many people.

Another proposition that is also talked of a good deal in oil circles is a branch line from the Coalinga fields connecting with the Standard company's pipe-line from Bakersfield to Point Richmond. At the present time this is merely talked of, but the Union company's proposed line to Monterey is far beyond the "talked of" stage and well-informed and conservative men believe it has now reached a point where it may be said it is a "go." It will be the biggest thing yet for the oil industry of Fresno county.

Mr. John Baker, Jr., the San Francisco sales manager of the Union Oil company, will neither affirm or deny the report that his company intends to build the pipe-line. The increasing business of the company, however, demonstrates that something must be done very quickly in order to increase their transportation facilities for oil from the Coalinga district.

### BIG OIL LOCOMOTIVES.

Immense Locomotives Purchased by the Southern Pacific.

The two large compound locomotives of the Atlantic type, recently purchased by the Southern Pacific company have arrived at the West Oakland yards and are the admiration of all the officials and employees. The locomotives are huge affairs, and tower away above their companions in the roundhouse.

The locomotives were built at a manufacturing shop at Baltimore, and are intended to sustain a speed of ninety miles an hour for several hours. One has been assigned the number of 273, and the other 277.

This is not the first locomotive of this type that the Southern Pa-

cific company has purchased, as several of the same style were received at the yards some time ago and have been in continuous service since.

One of the new engines will be detailed to haul the overland limited, and the other will probably be commissioned to take the flyer. The new locomotives have not as yet been fitted with the new combination oil and water tenders, but it is understood from officials at the yards that within a short time these tenders will be attached to the engines.

### New Incorporations.

The following articles of incorporation were filed last week in the office of the Secretary of State:

Connecticut and California Oil company. Principal place of business, Portland, Me. Directors, J. C. Ward, B. G. Ward, H. B. Russ, E. E. Pierce and A. C. Montford. Capital stock, \$200,000, subscribed, \$350.

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Address all communications to the Company at its Home Office.

### To Whom It May Concern.

Boulder, Colo., Oct. 6, 1902.

This is to certify that O. H. Jones, the oil locator of Los Angeles, Cal., located a well for the Otero Oil and Gas company in the Boulder, Colo., oil fields in May, 1902; that the same was drilled in to oil September 1, at a depth of 1,765 feet; that since September 3 we have been pumping 100 barrels per day. This was not near any other producing well.

F. J. CRETCHER, Director.

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5



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Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
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W. B. WINN, Editor and Publisher

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY... DECEMBER 5, 1902

As one result of the explosion on the "Progreso" the coal men are jubilant, and are already crying: "I told you so. It only took a little time for fuel oil to receive its death blow."

Their talk is nonsensical.

Fuel oil is all right, and the explosion on the "Progreso" has only brought into prominence the fact that there are two kinds of oil for fuel, good and bad, safe and dangerous.

There is no fuel in the world better or safer than the right kind of crude petroleum.

Fire Marshal Towe asserts: "Light oil from Coalinga explodes at a temperature of 50° to 60°, and the use of it in this city is confined to the gas works, the general use of oil that flashes below 110° being prohibited. It takes a temperature of from 280° to 300° to explode the heavy oil. As the heavy oil runs very slowly when unloaded there is a possibility that in some cases the light Coalinga oil may be mixed with it, thus making it run faster. The mixture is likely to be dangerous and the authorities here seek to prevent its use. The explosion to-day need cause no alarm among the users of oil. Up to date 250 plants are burning oil, that number of permits having been granted, and the use of oil at them has not caused an accident that did 10 cents' worth of damage."

A light, volatile fuel oil is dangerous, no matter how used. A light oil mixed with a heavy oil so that its gravity is lowered is just as dangerous. The same is true of a residuum mixed with a distillate to increase its gravity.

While these oils are dangerous the true, natural, heavy crude pe-

roleum is not dangerous, any more than is coal.

The howl of the opposers of crude petroleum serves only to emphasize the fact that the selection of crude petroleum for fuel must be attended with great care.

Inspectors should be appointed who should see that the oil furnished manufacturers and steamers is of the quality claimed.

If the sellers of crude oil are not honest they should be watched, and when convicted of furnishing consumers a dangerous quality of oil should be punished to the limit of the law.

The recent terrible and fatal explosion seems to furnish an opportunity that should be seized upon by the proper authorities, and some one be made to pay a heavy penalty for furnishing an oil for fuel on a steamship that under any circumstances was dangerous, but much more dangerous under those then existing.

While oil as fuel may have received a setback, it is one that is only temporary, and only shows in a most emphatic manner the advantages resulting from the use of proper oil.

## STATIONS FOR OIL.

**Southern Pacific Will Soon Have a Complete System.**

Within a short time the Southern Pacific company will have a system of complete stations where oil can be fed to its oil-burning locomotives. For weeks gangs of men have been stationed at Benecia, Vallejo and Port Costa constructing and erecting a number of tanks that will eventually contain oil that will be fed to the oil-burners. The work is about finished and by the time several other towns on the western division are furnished with the huge tanks, the Southern Pacific company will have a complete system of oil-feeding stations.

A gang, comprising about fifteen men, will soon commence the construction of a large oil tank near where the new narrow gage pier will be built and the same gang has just finished building a number of smaller tanks in the southern part of the State for the company.

Sacramento and Stockton are equipped with oil tanks and one has just been finished at Galt and added to these are the others that have been built and mentioned from time to time.

The railroad officials state that the oil stations will not of a necessity be less than one hundred miles apart on an average, and on the desert and other places that demand it, the stations will not have to be less than two hundred and fifty miles apart, so great is the capacity of the new tenders.

When more oil-burners are introduced, it is figured that before 1904 the Southern Pacific company will have consumed not less than 6,000,000 barrels of oil.

# LOSS OF THE "PROGRESO."

## Great Explosion Due to the Criminal Use of Highly Volatile Oil.

**Sample of the Oil In the Possession of the Fire Marshal, Who Says It Was Furnished By the Union Oil Company, and Flashes at 101.**

On Wednesday, December 3rd the steamer "Progreso" lying at the wharf of the Fulton Iron works was wrecked by an explosion of oil in her fuel tank.

The steamer was practically torn in two, eleven men were killed and many more injured.

The steamer had a gross tonnage of 1,919, and had just been fitted up as a bulk oil carrier to be used on the Atlantic sea-board. The work was being done by the Fulton Iron works. She had six oil tanks, five being used for the cargo, and having a capacity of 16,255 barrels.

The sixth tank, located amidships, had a capacity of 1,940 barrels, which was to be used as fuel by the steamer. In this tank about 400 barrels of crude petroleum had just been stored for use in the trial trip of the steamer, which was to occur on Friday.

Suddenly and without the least warning the tank containing the oil exploded with terrific violence, and the burning oil thrown throughout the vessel at once spread death and disaster. That more were not killed by the rapid spread of the flames is marvellous.

At once inquiries were made as to the cause of the explosion.

These inquiries are now being pushed by the United States officials who have charge of the investigation.

Some one is to blame for this terrible accident, and when this blame is finally and definitely located, the penalty meted out will be in proportion to the magnitude of the criminal negligence displayed, if such there was.

At present the affair is more or less shrouded in mystery.

That oil exploded in the "Progreso" there can be no doubt, but the cause of the explosion remains a mystery. Some say it was due to a lighted candle, a torch; others, to a hot rivet used in stopping a leak in the tank. In fact there are a dozen theories afloat, none of which are satisfactory.

It is even a matter as yet to be definitely proved who furnished the oil.

The Union Oil company officials decline to discuss the matter at all, but say they are ready to stand the closest investigation as to their part in the affair. They neither acknowledge they furnished the oil nor do they deny it, but de-

clare that whatever oil they furnish for fuel purposes is absolutely safe and will stand the fire test.

Fire Marshal Towe on Thursday afternoon stated emphatically that the oil in the "Progreso" was furnished by the Union Oil company; that it was pumped into the tanks of the "Progreso" from the tanks of the tug "Sea Rover," that a United States inspector obtained a sample of the oil; and that he, the Fire Marshal, made a careful test of it.

He found it to be a mixed oil, exceedingly volatile and explosive, and that it flashed at 101°. He states that the oil was a mixed Coalinga oil. The PACIFIC OIL REPORTER has been unable to obtain a sufficient quantity of this oil to make a careful analysis, but its explosive characteristics are apparent, the smell alone being sufficient to warn anyone from touching a lighted match to even a small quantity.

If the oil now in the possession of the Fire Marshal is a true sample of the oil furnished the "Progreso," the cause of the explosion is at once apparent. The gas arising in the tank would explode immediately if an exposed light was brought in contact with it.

What the light was in the case of the "Progreso" is not and probably never will be known. Undoubtedly the man who held it perished; but the accident never would have occurred had proper and safe oil been placed in the tank.

Coalinga oil used for gas-making explodes at from 50° to 60° temperature, and is not fit for fuel purposes. In fact no oil that flashes at less than 110° is safe. The sample taken from the tanks of the "Sea Rover" flashed at 101, and its use is attended with the greatest danger. Ordinary fuel oil explodes at from 280° to 300°.

If the oil furnished the "Progreso" was like the sample obtained by the United States inspector it was dangerous to a marked degree, and should never have been furnished as fuel.

If the Union Oil company furnished this oil they are criminally responsible for the destruction of this valuable steamer and its attendant loss of life, and whoever is guilty should be held strictly accountable.

If the Union Oil company is not to blame, someone else is, and that one, whoever he may be, should be held strictly accountable and made to suffer most dire consequences.



## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### COLUSA.

The casing is to be pulled in the last Smith & Gorrill well on Sand Creek and another well will be put down in the hills farther west. It seems, from the amount of gas which constantly ascends from the last hole that it is only a question of the depth and number of the holes until oily fluid is found.

#### FRESNO.

The Commercial will soon be pumping and also drilling more wells.

San Francisco Crude enjoyed a similar experience about the same time.

The oil men are busy preparing to pump old wells and sink new ones in the Coalinga district.

Maine State had a little gusher for awhile, a few days ago, when a stream of oil shot above the top of the derrick.

#### GLENN.

Great excitement prevails at Willows among people interested in oil. It was learned last Saturday that oil has been struck by the Washington-California Oil company on the Nye ranch, fourteen miles west of Willows. For the past two months indications have been so good that crews have been kept working day and night. The well is now 2,000 feet deep, and it is claimed that at present it will produce from six to eight barrels daily. The oil is of the very best paraffine quality. The operators of the well are confident that a great flow will be found at a depth of 2,000 feet. This being the first strike of oil found in Glenn county, it has occasioned no little excitement. The value of land has greatly increased in the vicinity of the producing well.

#### KERN

The Arcada Oil company has erected a rig on section 31-32, 24, near the proper-

ties of the Lucky Boy and the Sunset Queen Oil company.

The Peerless Oil company has two wells, Nos. 5 and 17, drilling, one down 400 and the other 500, and a third, No. 17, just rigging to begin operations.

At Sunset the Raisin City Oil company has erected a rig on 31-32, 24, and the Lone Star company operating in the same field has a rig en route to commence operations on another well.

The Mt. Boy, immediately south of the Bay City in the Midway, is preparing to drill another well. No. 1 is believed to be good for between 75 and 100 barrels, but it has not been put to a test severe enough to establish its capacity.

A veriest wildcat of all wild-catting, says the Californian, is the Webfoot company, operating in the Cuyama valley at the upper end near the mouth of Ballinger canyon. It is many miles from any successful well and an equal distance from any successful venture. It is at a great distance from transportation and is proceeding at numerous disadvantages. Nevertheless, it is going down in a satisfactory manner, has a hole 500 feet in depth and as straight as a die, and as the people who organized the company are spending large sums of their own money, the nerve of it is admirable. Such things have been common enough when the cash expended was paid in from everywhere for treasury stock, but the Webfoot stands out distinctly in a class all by itself. It deserves the success that its surface indications are said to show.

#### LOS ANGELES.

The Sespe Canyon Oil company last week struck oil at a depth of 615 feet, 30 feet in the sand and the hole had filled up 450 feet with oil.

#### ORANGE.

So much oil has been struck in well 60 on the Puente Oil company's lease it will have to be pumped a short time before drilling can be resumed. Oil was first encountered at a depth of 600 feet, but the well is now much deeper.

The Columbia Oil company has finished another new well, No. 18, and it is said it will make one of the best producers of high gravity oil in the Fullerton field. It is a spouter, but has not been tested to its full capacity, but a report says it is a good one.

#### SAN BERNITO.

The Watsonville Oil company has bought the rig, tools, etc., of the Gilroy Oil company, and will use the outfit in drilling more wells near the well recently drilled by them on the Sargent ranch. This well, though filled up, is good for 25 barrels a day of 20° oil.

#### SANTA BARBARA.

Well No. 13 on the Western Union lease came in last week Tuesday night at a depth of 1,560 feet. The drillers had been anticipating a strike for several days, and were prepared to cope with the flow as soon as the oil was struck. The well was started with 11 5/8-inch casing and finished up with the 8-inch. Work on No. 14 began this week.

The Pinal company has 900 feet of oil in its casing, which will be put under the pump in a few days. The machinery is already on the ground, and preparations for marketing the product will begin at once. The high grade of oil will net the stockholders good returns. The Santa Maria Oil and Gas company, whose property is in line with the other successful companies, are drilling now at considerable depth and find excellent indications for oil.

The Brookshire Oil company has been incorporated with a capital stock of \$500,000, the promoters being some of the same parties interested in the Pinal company. Patrick Moore is the president; Paul Tietzen of Santa Maria, vice-president. The company has purchased 180 acres of land quite near the Pinal company's holdings, paying for it with stock at the rate of twenty-five cents per share and we understand the balance of the

stock is placed in the treasury to be disposed of to raise the working capital.

The Casmalia Ranch Oil and Development company struck oil near Shuman canyon last week. The amount of oil at this time is not known, but the fact that the company has been drilling in a deep hole for some time and frequently encountered seepages leads to the belief that it is the same body as underlies the Carcaga ranch. The strike is of greater importance than made as yet, for it proves the entire county along the southern extremity of the Santa Maria valley and makes it one of the largest oil fields in the State.

#### VENTURA.

The New Weldon Oil company began drilling work last week Thursday on the Hartman place. The well is on the site of the old gas well bored by Mr. Hartman several years ago. The contract calls for a well 2,000 feet deep. Two thousand feet of pipe have been laid from the Barnard place to the well to supply water for the drilling. Work will be pushed as fast as possible. There is every indication that oil exists somewhere in the locality, and the company hopes to strike a paying flow.

#### Oil for Arizona.

Arizona is increasing its consumption of California fuel oil. Operators in that territory are beginning to feel the effects of the great coal strike in the East, and prices of soft coal have advanced from 50 to 75 cents per ton. This advance is making the mine owners sore, and is causing many of them to turn their coal burners into consumers of fuel oil. Recently large orders for oil were placed in the California fields, and it is predicted that by the end of the year at least one-third of mines in Arizona will be using the California crude.

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By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

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IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

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SAN FRANCISCO, CAL.



### OIL AS FUEL.

#### New Method of Using the New Fuel for Domestic Purposes.

How to use crude oil for domestic purposes cheaply is the problem that those interested are devoting a deal of time and thought to solve. P. L. Linehan, who is an expert in this line, says that if he had a dozen cook stoves located in half a block he could introduce the crude oil for fuel and make a great saving. "But we have not been successful in finding a method to use the oil in a single stove without so much expense that no saving is secured. The oil will not burn and heat satisfactorily, except when it is under heavy air pressure, and there must be not only condensed air but free air. The oil, so to speak, must be held in suspension in the air and then it works to perfection. Where there is a large plant, that is, where the consumption of oil is in amount to justify the use of an air pump, the problem is solved, for with the pump put in there is no further difficulty to be overcome. But for a single family the expense of a pump and of power to operate it renders the use of the oil more expensive than other fuel. "I do not know when or how the problem will be solved but I am sure that it will be. There are many men studying the question and they will find some method of using the oil.

"The saving by its use in an

ordinary household will be enormous. By actual experiments we have found that this saving is fully 60 per cent over wood and coal. We installed a plant which operated eleven stoves. The cost of the oil for a given time, all stoves heated for the same hours, was \$6 and for wood \$36.

"Our experiments show that cost for fuel in an ordinary family to do all the cooking and baking will be only about 1½ cents a day. This is a liberal allowance. The general public has no idea of the wonderful economy that can be effected when oil is used. It is not strange then that so many persons are working on the problem of using it in the household stoves and heaters.

"Of course we all know that in high pressure boilers the oil is now used almost universally in this State. A few cents for oil now does the irrigating that formerly cost from \$4 to \$6 for wood.

"I am satisfied that it will not be long until the housewife will go down town and order a can of crude oil for her cook stove instead of a cord of wood.

### GONE TO WASHINGTON.

#### President Wright of the Peerless to Battle Against Scrippers.

President J. M. Wright, of the Peerless Oil company, left for Washington and the East on Wednesday morning.

He took with him the appointment by the California Petroleum Miners' Association, to act as their representative in defending the rights of the oil men against the

attempts of the scrippers who have been and are now attempting to fraudulently wrest away from them their land on the plea that it is agricultural rather than mineral land.

Mr. Wright is not only as an oil man well acquainted with the situation between the scrippers and the oil men but is an attorney of established reputation, and is therefore peculiarly well qualified to undertake the important mission to which he has been appointed.

### Texas and California Oils.

Official tests show very little difference between Texas and California oils. This fact is brought out in a report on the subject by the statistical department of the Santa Fe, which is using oil over a great part of the lines, after exhaustive experiments as to the relative economy and benefits of oil and coal. The amount of oil used per ton per mile is very nearly the same, 0.3% pound in both cases. The amount per car mile is 2 percent and the evaporation is 3 percent in favor of the California oil, although the net gain in actual service is less on account of steam being used to heat the California oil in the tank. The Texas oil, being much thinner, does not require heating.

### Assessments.

Commercial Petroleum company, \$2 per share; delinquent December 10.

Fresno-San Francisco Oil company, Fresno county, 3 cents per share; delinquent December 3.

Mercantile Crude Oil company,

Coalinga district, Fresno county, 5 cents per share; delinquent November 20.

Independent Oil company, Coalinga district, Fresno county, 1½ cents per share; delinquent December 15.

Esperanza Oil and Gas company, Kings county, \$2 per share; delinquent December 20.

Clear Light Oil company, San Benito county, one-eighth of a cent per share, delinquent November 28th.

Rio Bravo Oil company, Kern county, one cent per share, delinquent December 22d.

Wellington Oil company, Kern county, two cents per share, delinquent November 27th.

California Combined Oil company, Kern county, one cent per share, delinquent December 3d.

Niagara Oil company, Devil's Den, Kern county, four cents per share, delinquent November 29th.

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# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

### \$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400

1. The advance to par of one stock out of four will return in cash 112 percent on the investment.
2. The advance to par of two stocks out of four will return in cash 225 percent on the investment.
3. The advance to par of three stocks out of four will return in cash 337 percent on the investment.
4. The advance to par of all four stocks will return in cash 450 percent on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies.

All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

### INDEX.

Facts Worth Reading.....	Costly Advertising.....
Investigations.....	Why Some Corporations Fail.....
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Debentures.....	A Word About Our Business.....
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Our Invariable Rule.....	The Percent of Failures.....
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The Big Four.....	The Price of Oil.....
Directors of The Oil Companies.....	Press Notes.....
Reports Upon The Property.....	Faithful Oil.....

Our location is 35 miles from San Francisco with tidewater transportation.

### THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION: TRANSPORTATION, MARKET, PRICE.

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity. Investigate this proposition.

Write us for maps, pictures, literature, etc.

## THE DEBENTURE SURETY COMPANY, (INCORPORATED.)

230 Bush St., Mills Bldg., San Francisco, Calif.



**TAMPING AND ROLLING.****Improved Method of Treatment of Streets With Oil.**

Santa Barbara and Bakersfield have developed an improved and practicable method of treating roads and streets with oil. The dust nuisance was easily killed off completely, but the best roads possible have not always followed the use of oil, nor has the ground been properly prepared for its application.

The California Dustless Road commission, started out simply with the idea of laying the dust during the long dry season, and the claim was made that there must be several inches of dry dust on the road and the oil must be applied as hot as possible. It has required two years' experience and experiment to show that by proper methods the dust may not only be laid, but a permanent, hard roadbed may always be obtained.

In Santa Barbara the streets are first of all brought to a clean, round grade. The dirt is made fairly fine, a spading harrow being used. This grading does away with chuckholes and makes the street as even as possible before the oil is placed.

Sprinkling with water follows the grading. On several blocks sprinkling was omitted to see what the effect would be. The best blocks laid are those where the sprinkling was done. The oil was heated in its car to make it run easily and was then hauled to the streets in a sprinkling cart. The cart is driven slowly over the street and the oil runs upon the surface. Then comes a second coating of oil. Harrowing for the third time mixes the oil well with the earth, but gives the street a very nasty appearance.

Next comes the roller, or tamping machine. It consists of a roller of wood, into which are set rows of iron spikes each a foot long and having a head two inches square. The spikes project about six inches. The roller rolls on the ends of these spikes and mashes the oil almost out of sight into the street. The treatment with this roller hardens the surface and permits the use of a heavy steam roller for the purpose of further packing and leveling the streets.

The amount of oil used was 100 barrels to a 450-foot block of 60-foot street. Travel on the streets has hardened them into almost an asphalt surface as the volatile parts of the oil have evaporated.

In Bakersfield a section of five blocks has been treated similarly. The spiked roller was used. The Californian says that the idea was taken from noting the manner in which the many feet of a large band of sheep pack the ground where they travel. The oil is at once driven down into the soil and tamped there much more effectively than by the various devices for harrowing over to mix with the dust. The oil in this case was simply heated enough to make it flow readily from the sprinkler and the soil was quite cold, but after the roller had passed over it twice scarcely any oil was left on the surface and wagons could pass over it at once without picking up a particle of the oil. This in itself is a very important advantage, as one of

the chief difficulties in applying oil to the surface of the roads has been that traffic could not be kept off long enough to let the oil soak away and wheels would carry away patches, making a bad chuckhole immediately.

The tamping roller effectually disposes of that trouble, as it forces the oil into the soil so deep and solid that traffic can follow at once.

**INDIAN TERRITORY.****Vast Deposits of Asphalt and Coal to be Sold.**

According to an agreement between the Choctaw and Chickasaw nations, Indian territory, and the United States, the coal and asphalt deposits and lands in these nations, not exceeding a half million acres, are to be segregated by the secretary of the interior and, at the expiration of two years or before, sold at public auction by a commission appointed by the president. These coal and asphalt deposits and lands are to be located and segregated from allotment to the Indians by March 25, 1903.

Mr. Joseph A. Taff, geologist of the United States Geological Survey, has been detailed by the secretary of the interior to give the Dawes commission expert advice in the selection of the coal and asphalt lands to be thus segregated. Mr. Taff has for several years past been engaged in the Indian territory coal fields and is eminently qualified for this responsible duty.

The coal deposits occur in a number of beds, ranging in thickness from 2½ to 5 feet. The largest area lies in the northeastern part of the Choctaw nation. Other small areas occur in the northeastern and southeastern parts of the Chickasaw nation. These coals for the most part are high-grade bituminous. Some of the eastern part of the field approaches anthracite in composition, yet are coking coals. The asphalt deposits of value occur in the central part of the Chickasaw nation.

**An Oil Smelter.**

The Prospect, of Prescott, Arizona, says: The newly erected hydro-carbon smelter, the invention of Martin P. Boss of San Francisco, has started their machinery for a first trial, to see if anything would run smoothly, and the Prospect learning of the fact sent a man down to Mayer to report on the manner in which it acquitted itself, and also to take some notes on the smelter itself. For this hydro-carbon smelter is the only one ever built of its kind, being an oil, instead of a coke burner, and should it prove a success a shout would go up from all smelting men in the country. The process is finished with less than half the work or time that is required by a coke burner, in fact it is simplicity itself. The hot blast is applied from the front of the furnace through three oil burners fed from a 43,000 gallon cistern 100 yards north of the works.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

**OIL-HEATING STOVE.****A Simple Device That Answers Every Purpose.**

Take any old-fashioned, cast-iron, oblong stove, that is dear at \$5. It is the oil-burner, if burner it can be called, that deserves attention. There really is nothing to the burner except some air holes and a good draught. The oil is fed into the front of the stove just where the air enters, and as soon as the fuel is ignited, a fire results that discounts any other for steadiness of heat that has yet been seen.

The draught drives the flame back through the space beneath the door and into the stove which is filled with bricks, and in ten minutes or less the stove is red hot if so much heat is desired. The amount of oil is easily regulated, and a steady heat can be had that keeps the room at an even temperature throughout the day.

In the Californian building the stove in question is lighted at 7:30 in the morning and burns until 5:30 in the evening. During that time, says the Californian, it consumes about three gallons of distillate, which suffices to keep warm a basement 42x87 feet. Those familiar with wood stoves can readily figure the amount of fuel that would be required for the same service. For this latest stove it should be said that there is an absence of the noise so common in other oil-burners, and that it is absolutely safe, there being no chance for the oil to run over on the floor.

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Attends to all corporation matters.

Incorporates under laws of any state.

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Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

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**A Snap**

if taken advantage of at once.

A Standard oil well boring outfit complete. Now situated in the Colusa field FOR SALE CHEAP or open to other propositions of great advantage to the right party. For particulars address, P. O., Box No. 132, Corning, Cal.

# A BONANZA INVESTMENT

## The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4½ CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

## THE AMERICAN INVESTMENT CO.

2 KILBY ST., - - BOSTON, MASS.



## California Stock and Oil Exchange.

WEDNESDAY, DECEMBER 3, 1902.

Business on the Board has been more active during the week just passed than for some time previously. Trading, however, has been confined almost entirely to a few of the leading stocks.

The mild sensation of the week has been the advance in Monte Cristo from \$1.12½ on last Wednesday to \$1.50 on Monday morning. In the afternoon session of the same day, the price broke under sales of less than 1,500 shares, and the stock sold down quickly to \$1.37½.

It is now quoted \$1.32½ bid and \$1.40 asked. No reasonable cause can be assigned for this fluctuation, and it looks like manipulation, and as though there were buying orders in the market.

Peerless has announced dividends for January and February of 10c. per share in place of 8c., but despite this increased rate the stock is weaker, a few shares going over the Board this afternoon as low as \$1.00.

Kern is stiffer at \$3.85 bid. Four has advanced, and 55c. is now freely offered. Some little Monarch has changed hands at 10c., an advance over last week. Sterling during the week sold up to \$1.72½, but is again a little off. Twenty-eight has advanced, sales being effected at \$1.55. Reed crude is quoted at 30c.-31c., hardly up to the price in Los Angeles. A good deal of Independence has been purchased at 6c.; the assessment of 1½c. a share will be added to the price of this stock on Monday next.

A cheap stock that is attracting some little attention is Apollo on section 4, Kern River. Holders have raised their limit considered recently, and the present condition of the company seems to warrant the advance.

In miscellaneous securities, S. F. Gas & Electric is somewhat better while Northern Calif. Power and Truckee Electric are slightly weaker.

Sugar stocks continue firm, with an advance in Honolulu and Makaweli of several points.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, December 3:

### CALIFORNIA STANDARD.

700 at \$ 13..... \$ 91 00

### CENTRAL POINT CON.

500 at 65..... 325 00

### FOUR.

1,000 at 55..... 550 00

2,000 at 53..... 1,060 00

500 at 53 (B90)..... 265 00

### HANFORD.

2 at 90 00..... 180 00

### HOME OIL.

100 at 2 90..... 290 00

100 at 2 85..... 285 00

### INDEPENDENCE.

500 at 06 (B 10)..... 30 00

400 at 06 (B 30)..... 24 00

9,200 at 06..... 552 00

2,000 at 06 (B 90)..... 120 00

1,100 at 05..... 500 00

### KERN RIVER OIL.

10 at 7 25..... 72 50

2 at 7 00..... 14 00

### MONARCH.

600 at 19..... 114 00

### MONTE CRISTO.

100 at 1 35 (S 90)..... 135 00

100 at 1 40 (S 90)..... 140 00

200 at 1 42½ (S 90)..... 285 00

100 at 1 35 (S 30)..... 135 00

100 at 1 22½..... 122 50

1,250 at 1 35..... 1,687 50

900 at 1 40..... 1,260 00

100 at 1 32½..... 132 50

1,750 at 1 37½..... 2,406 25

200 at 1 50..... 300 00

1,100 at 1 47½..... 1,622 50

100 at 1 45..... 145 00

15 at 1 15..... 1,725 00

100 at 1 27½..... 127 50

200 at 1 42½..... 285 00

### PEERLESS.

140 at 12 00..... 1,680 00

50 at 11 00..... 550 00

### PETROLEUM CENTER.

200 at 03..... 6 00

### REED CRUDE.

600 at 32..... 192 00

100 at 31..... 31 00

2,000 at 30..... 600 00

### S. F. & MCKITTRICK OIL.

70 at 1 25..... 87 50

## SAN JOAQUIN O. & D. CO.

50 at 7 25..... 362 50  
50 at 7 00..... 350 00

## SOVEREIGN.

75 at 28..... 21 00

## STERLING.

100 at 1 70 (C)..... 170 00

900 at 1 72½ (B 30)..... 1,552 50

1,500 at 1 70..... 2,550 00

100 at 1 70 (B 30)..... 170 00

500 at 1 70 (B 4)..... 850 50

300 at 1 72½..... 517 50

100 at 1 65 (C)..... 165 00

1,100 at 1 65..... 1,815 00

500 at 1 67½..... 837 50

100 at 1 70 (B 90)..... 170 00

## THIRTY-THREE.

100 at 7 50..... 750 00

## TWENTY-EIGHT.

500 at 1 55..... 775 00

43,064 Shares Amount \$27,476 00

## HUTCHINSON-SUGAR.

20 at 15 62½..... \$ 312 50

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PEERLESS OIL COMPANY—ON DECEM-

ber 1st declared a dividend No. 9, of ten (10)

cents per share, payable January 1, 1903. Books

close December 26, 1902.

The address of stockholder W. I. Taze is desired.

GURDON BRADLEY, Assistant Secretary.

a year. How to make it.

Write J. D. Johnston,

Newport, R. I.

## 50 Percent

## NOTICE OF ASSESSMENT.

LOMA PRIETA PRUNE RANCH COMPANY.

Location and principal place of business,

San Francisco, California. Location of ranch,

Monterey County, California.

Notice is hereby given that at the meeting of the

Board of Directors held on the 10th day of Nov-

ember, 1902, an assessment of five (\$5.00) dollars

per share was levied upon the capital stock of the

corporation, payable immediately in United

States Gold Coin, at the office of the Secretary,

3331 Washington St., San Francisco, California.

Any stock upon which this assessment shall

remain unpaid on the 10th day of December,

1902, will be delinquent and advertised for sale

at public auction, and unless payment is made

before, will be sold on Friday, the 9th day of

January, 1903, to pay the delinquent assessment,

together with the costs of advertising and ex-

penses of sale.

By order of the Board of Directors.

FRANK MORTON, Secretary.

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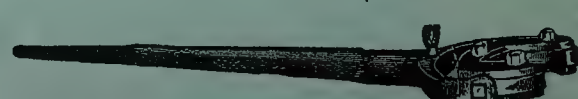
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It is only necessary to have one of these wrenches for all sized bits

You simply change the top plates, which have different size squares

to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

J. BARRETT, Allegheny, Pa.



**SHASTA COUNTY OIL**

**Two Companies Have It in Small Quantities.**

In Shasta county a year or so ago nineteen oil companies were incorporated, but only three of them got as far along as purchasing rigs and drilling. These were the Keswick Crude, the Mt. Shasta and the Shasta Consolidated.

The Keswick Crude, operating on the sand flats east of Keswick and north of Redding, drilled 520 feet, lost its tools, and couldn't fish them out. It had oil when the accident happened, as much as ten or twelve barrels a day. The water was not cased off and the oil was of course not saved except in samples. Despairing of fishing out the tools, a second well was drilled six feet to the east of the first. This had reached a depth of 320 feet when it was abandoned because the company was out of funds. The financial management has been bad from the start. Although the stock was advertised as non-assessable, being incorporated under the Arizona laws, a 1-cent assessment was levied, \$1,400 collected and then delinquent stockholders were forgiven and allowed to retain title to their stock. The company is being sued in the courts on a claim of \$900 for labor. Its affairs are in a badly tangled shape, which is unfortunate in view of the good prospects it had.

The Mt. Shasta company drilled a hole 300 feet deep only a few rods east of the Keswick Crude, and then suspended operations as the company had other properties in Napa county which required immediate attention. It will soon begin to sink the well deeper and reach the oil stratum which the Keswick people struck.

The Shasta Consolidated over a year ago drilled a well 998 feet deep twelve miles east of the sand flats region. At that depth it found oil which amounted to 200 or 300 barrels a day, but was not cased off. The company lost its tools. Recently they have been fished out, and work of boring the well will soon be resumed.

It would be a great boon to Shasta county and all northern California if oil should be struck in that region. The great misfortune in the prospecting done there has been that the companies have not had enough cash to carry on the prospecting work thoroughly to any great depth.

**Will Again Grade Land.**

Captain Cummings, upon whose recommendations much of the supposed oil lands were withdrawn from entry several years ago, is again to investigate the same territory. He will pass upon the lands once more, this time in the light of the knowledge developed by the drills and wherever it has been disclosed that there is no mineral (oil) on the public domain, the land will be thrown open to settlement. Captain Cummings' work will result in officially determining whether or not the land is oil land. Not much of a stir will be created, however, as the information the government will gain is already in the possession of the public and has been acted upon. The lands

that will be restored no one would now undertake to exploit for oil and no one not after oil has any use for them.

**CVGNET PETROLEUM CO**

Capital.....\$150,000  
Treasury stock.....\$50,000  
Location—Fresno county.  
Directors—Chas. I. Pair, president, Blits W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McKelroy, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

**STANDARD ROCK OIL COMPANY.**

Capital.....\$500,000  
Treasury stock.....\$150,000  
Location: 92 acres leased proven oil land in McKittick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Lawson, R. P. Chase, Col. R. J. Ensign.  
Offices: 475-76 Parrott Building, 855 Market street, San Francisco, Cal.

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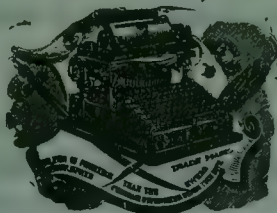
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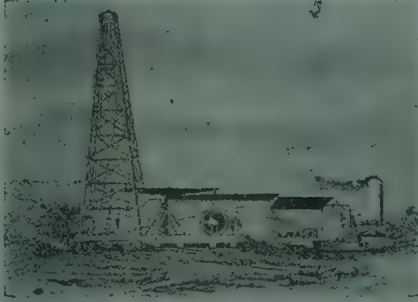
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Tons per Month Capacity are Completed and Running.

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We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

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of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

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Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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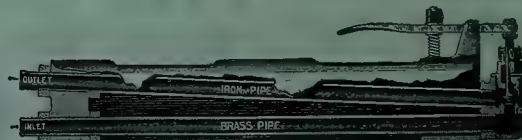
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 6.

SAN FRANCISCO, CAL., DECEMBER 12, 1903.

Price 10 Cents.

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PITTSBURGH, PA.

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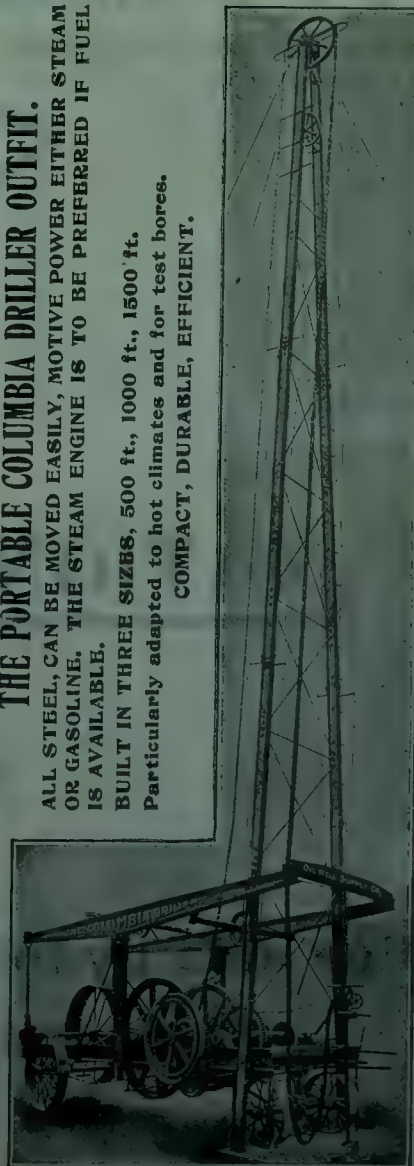
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**For sale by Jobbers of Oil Well Supplies Throughout California and the Pacific Coast.**



# PACIFIC OIL REPORTER

VOL. 4. NO. 6.

SAN FRANCISCO, CAL., FRIDAY, DECEMBER 12, 1902.

PRICE, TEN CENTS.

## THEORY VERSUS PRACTICE.

### Certain Things About Oil on Which There is Sharp Controversy.

#### Does the Man Who Sits in the Chair of Science Know More About Oil Than the Man Who Refines, Uses or Transports It?

Since the explosion of fuel oil on the *Progreso* there has been a great increase in talk, newspaper as well as verbal, about the different characteristics and qualities of the various fuel oils, especially as regards the difference between the heavy and light oils.

Without going into the discussion scientifically, or using any technical terms it may be stated as a starter that the truly scientific man and his tests are worth very little as regards stamping oil good or bad for any purpose, fuel, refining, lubricating, or anything else. The trouble is that most chemists are scientists, and have a theoretical rather than a practical knowledge. To obtain the best results a chemist should be able to make a practical, commercial test of oils.

A man may drill a well, strike oil, take a sample to a chemist and ask him what it is good for. The chemist may analyze it with greatest care and correctness, and from the result report that the oil will yield such and such a per cent of illuminating oil, for example. The oil man believes the chemist was correct in his report, and sends a ten or twenty barrel lot to a refinery to have a practical commercial test made, the result of which may show that the chemist was entirely at fault in his report, and that the oil is not nearly as valuable as he said it was for refining purposes. Little illuminating oil was obtained, and that which was obtained was obtained at double the cost of what it was worth in the market.

The chemist was correct so far as his scientific and chemical analysis was concerned, but when the oil was submitted to the practical refiner, the latter was unable to get from the crude article the amount of illuminating oil called for by the expert chemist.

Science said the crude oil was a first-class illuminating oil. Practical test showed it was not.

Cases like this can be enumerated without number, and the result is the chemists and the refiners are often at outs, and do not value each other's opinions

very highly. Sometimes one is wrong, sometimes the other.

The same is true in regard to manufactured oils.

Take the matter of lubricating oils.

Two years ago a naval officer, an expert chemist and scientist, made a careful analysis of different oils to find that best suited for

use long enough it would ruin them completely.

He was told that was none of his business; that the naval department had scientifically examined these oils and was convinced that a certain kind of oil was the article needed, and that the oil men were requested to bid on that one variety.

The oil man again remonstrated against the use of this oil, and finally said that if it was used on the transports each engineer, on arriving at Manila, would refuse to make the return trip with such oil, and the government would be obliged to purchase other oil at three or four times the price charged in San Francisco.

Finding the government refused to listen to his advice the oil man refused to bid on this variety of oil. Another dealer sold the gov-

ernment an immense quantity of the oil demanded, all of which had to be thrown away, as the engineers could not and would not use it, and the government was forced to buy oil at Manila at exceedingly high prices.

Here again science comes up against practical experience, and science was found to be wrong.

The same is true in regard to fuel oil.

Recently a report was made as to the relative values of oils for fuel purposes. One oil was of 20° gravity, the other 16°.

There is no need of going into particulars as to the report, which was very scientific and abounded in technicalities and figures that only a scientist or advanced engineer could understand.

One part of the report, which was true, was nevertheless misleading. It was this, viz.: That a POUND of the light oil would evaporate more water than a POUND of the heavy oil.

That report was true, and is to-

day being shown as a reason why the oil of a certain company is better than the oil of a certain other company. The report is true, and it is also, strange to say, false. A POUND of this light oil will evaporate more water than a POUND of the heavy oil. On the other hand a BARREL of the heavy oil will evaporate more water than a BARREL of the light oil. The scientist is right, but he is likely to give the ordinary man a wrong impression.

The scientist deals in oil in POUNDS.

The ordinary man, the consumer, deals in oil in BARRELS. A barrel of the heavy 16° oil weighs a good deal more than the light 20° oil and as a consequence there is more oil in a POUND of the 20° oil than in a POUND of the 16°. Consequently the 20° oil makes a better showing than the 16° oil when compared by weight.

By barrel the result is different. The consequence is that while the scientist, who reckons by pounds, says the light oil will evaporate more water in the boilers than the heavy oil, the engineer, who uses the oil, and the consumer, who pays for the oil by the barrel, declare that the scientist is wrong, and stick to the use of the heavy oil.

Here again science and practice are at outs.

The same is true in regard to the explosive quality of oils.

The scientist will tell you, at least they have told the writer, that the flash test does not prove that oil is more or less liable to explode, and that, as a matter of fact, an oil which has a very low flash point may be much safer than one that has a high flash point.

He may be right, but the sea captain that has on board a cargo of oil thinks the learned chemist is wrong, and when he has a certain kind of oil on board in bulk, sloshing around in four or five big tanks his life is made somewhat strenuous by anxiety. The rules against fire rigorously are enforced. No one can smoke on deck, no one can carry a light, in fact no light is allowed on ship except electric lights. Where lanterns are required they are of the electric kind.

One well-known sea captain in San Francisco said last week: "If it comes to shipping this high-grade 20° oil in my tank vessels I shall refuse to do it. I do not believe life or property should be endangered that way."

"This oil is to be used for fuel, and the opinion of experts to the contrary notwithstanding, I want to say right here that no 20° oil is to be shipped on my vessels. If I have the oil—enough of it, I shall have it run through a refinery and the volatile part taken out, leaving a residuum of 16°. That is safe to ship under ordinary circumstances and lighter oil is not safe to ship."

The captain ought to know. So had the scientist. One says 20° oil is safe. The other says it isn't.

Which is right?

Ask the men on the "*Progreso*" which exploded last week. They might have an opinion.

## OUR NEW YEAR'S EDITION.

The annual New Year's edition of the PACIFIC OIL REPORTER will be published January 3rd.

This edition will be noteworthy among oil publications which have heretofore appeared, not only on account of its beautiful appearance, but more especially on account of its contents

It will contain a number of special articles from those prominent as scientists, geologists, practical drillers, and successful oil men generally.

It will cover every oil district in the State.

It will be beautifully illustrated with half tone reproductions.

It will contain statistical information that will be exact and reliable.

use on the engines in the transport service. He reported just what the different samples contained, and concluded that such and such a sample was the identical thing needed. The price cut no figure in the case at all. It was science—chemical analysis—that had determined what was the best kind of oil should be purchased for the United States transport service.

Immediately the different oil men were notified to put in bids on this particular kind of engine oil.

One of the largest dealers in oil on the coast went to the quartermaster in charge and told him very frankly that the kind of oil wanted by the naval authorities was not suitable for the purpose intended. If used it would prove to be sticky and dirty, and would greatly injure the engines. If

ernment an immense quantity of the oil demanded, all of which had to be thrown away, as the engineers could not and would not use it, and the government was forced to buy oil at Manila at exceedingly high prices.

Here again science comes up against practical experience, and science was found to be wrong.

The same is true in regard to fuel oil.

Recently a report was made as to the relative values of oils for fuel purposes. One oil was of 20° gravity, the other 16°.

There is no need of going into particulars as to the report, which was very scientific and abounded in technicalities and figures that only a scientist or advanced engineer could understand.

One part of the report, which was true, was nevertheless misleading. It was this, viz.: That a POUND of the light oil would evaporate more water than a POUND of the heavy oil.

That report was true, and is to-



## OIL AS FUEL FOR NAVY.

### Experiments On Various Warships Very Encouraging.

#### Advantages of Oil Over Coal Enumerated.—Experiences in Trials in Various Foreign Countries. Interesting Results Obtained.

Is oil to supersede coal in propelling the fleets of the world? All fuel questions are now of interest. It is too early to say that the world's navies are abandoning coal, but the experiments which have been carried on in different parts of the globe give great promise for the future. One thing which has stood in the way of rapid adopting of oil-burning furnaces, and that is the limitation of the supply of oil to certain countries, which, in time of war, might cut off the resources of their enemies. But this objection is rapidly disappearing in the face of discoveries of oil fields in new places. Crude petroleum, with either an asphaltum or paraffine base, is one of the most widely scattered minerals in the world.

The development of the great fields in Texas and California has stimulated experiments to determine the practicability of burning oil in ocean steamers and especially in the navy. With an abundant supply of oil now assured, the next questions relate to its economy and the apparatus for its use. Oil is in regular use now in hundreds of steamers along the Gulf, Pacific and Atlantic coasts. The most prominent example of its successful use in an ocean voyage by an American vessel was that of the steamship "Mariposa," which recently made the trip from San Francisco to Tahiti, 8,000 miles exclusively on oil. Lieutenant Winchell, U. S. N., was a passenger, detailed by the navy department to observe the experiment. He reports only minor objections. Many advantages are claimed for oil over coal—the absence of ash, the employment of fewer firemen, the comparative absence of smoke, the generation of greater heat in a given space, the greater rapidity of steam generation and the compactness of stowing.

Russia has already adopted oil-firing for her Caspian fleet and Sweden has contracted for a thirty-one-knot torpedo boat destroyer, to be fired by liquid fuel. Experiments are under way in Great Britain, Germany, France, Holland and Italy, and naval vessels of each of those countries are to be fitted experimentally with oil-burning boilers. Great Britain's experiments have been confined to the use of oil on the

torpedo boat destroyer Surly, though the cruiser Blonde and one of the six boilers of the battleship Arrogant are fitted for oil. The battleships Mars, Hannibal and Resolution are to be equipped for oil experiments. The chief objection found in British ventures has been the dense smoke resulting. They have been using Borneo oil, but are now trying the Texas product.

The Dutch government has conducted some interesting experiments, especially with the torpedo boats Ophir and Pangrango. An increase of two knots was obtained on the Pangrango at the same rate of combustion as was used for coal. The Dutch East India company fitted the steamship Brouwer with oil-burners on the Kortring system, and obtained gratifying results. "During a five-hours' trial in the open sea," reports the writer in "Notes on Naval Progress," just issued by the navy department, "absolutely no work had to be done in the fireroom. The smoke was very thin, sometimes hardly visible."

The French government has confined its experiments to the use of solidified petroleum and briquettes, without striking success. Germany has fitted some of her naval vessels for carrying oil as an auxiliary to coal, and is conducting experiments in the exclusive use of oil. The German steamship "Tanglin," on a voyage from Singapore to Sydney, a distance of nearly 5,500 miles, burned Borneo oil, and with marked success. "The weight of each day's supply of fuel was much less, and a great saving of labor was effected," says the report. "Only one man per watch was required, instead of five. With a consumption of thirteen knots per day an average speed of 11½ knots per hour was attained. This means an increase amounting to a knot per hour. \* \* \* The saving of £5 10s per day does not represent the whole gain to the ship-owner. There is the extra freight that he may earn as represented by the difference between 13 and 20 tons dead weight daily consumption, which, on a 20 days' run, would be equal to 140 tons."

The naval writer quotes a paper by Sir Fortescue Flannery, an authority on the subject, who says that two tons of oil is equivalent to three tons of coal, or 36 cubic

feet of coal, as usually stored in ships' bunkers, which would increase the range of action of a warship by 50 percent for the bunker space allotted, or nearly 90 percent upon the bunkerspace.

The British admiralty considered the fuel value of oil was not 50 per cent greater than coal, but only a possible 33 per cent. In reply to this the author stated that the result of six years' experiments with merchant vessels had shown sixteen tons of oil to give the same horse-power as twenty-five tons of coal. On larger vessels twenty-nine to thirty tons of oil replaced forty-three tons of coal. Experience with other vessels was still more favorable, and in one case the ratio of coal to oil was 3 to 2. Recent exhaustive comparative tests of Texas oil and coal made in a land boiler by Professor Denton of Stevens institute of Technology, Hoboken, N. J., have given the following:

Evaporation per pound of coal from and at 212°, 9.17 pounds.

Evaporation per pound of oil from and at 212° 15.1 pounds.

Thus 1,362 pounds of oil seems equivalent to 2,240 pounds of coal, which gives a ratio of efficiency of oil to coal of 1.65. These tests were conducted with great care and under the best possible conditions.—New York Evening Post.

## OIL ON ROADS.

### Government Agent Recommends This Method.

James W. Abbott, head of the Rocky Mountain and Pacific coast division of the "Good Roads" office of the government, is in Los Angeles on a special mission. He is visiting Southern California at the direction of Secretary of Agriculture Wilson, in order to observe the use of oil on the roads.

"I consider," he said, "that the methods of oiling roads as inaugurated in this district, ranks in importance in the history of highways with the discovery of the 'macadam' system of roads. It is a great thing in modern road building."

### Oil-Burning Engines.

As fast as it is found to be practicable the locomotives are being converted into oil burners at the West Oakland yards. The latest additions to the ranks are engines No. 1,405, which left the shops last week and engine 1,422, which went out Monday. The former will be in charge of Engineer Con Collins and will run between Stockton and Sacramento. The latter will be stationed on the Wadsworth division. The "Eight Spot," which carries the Owl train, was converted into an oil burner last week and is back on her regular run.

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**ALL FUEL OILS SAFE.**

**Proper Care Should Be Exercised in Their Use.**

It is pointed out by Robert Forsyth, chief engineer of the Union Iron works, and an eminent authority on fuel oil, that the quality of the oil in the "Progreso's" tank had very little to do with the explosion. While admitting that the light oil furnished to the "Progreso" would, when exposed to the air, generate gas more readily than heavier oil, according to a San Francisco paper, he maintains that the heavier oil would have generated gas sufficient to cause the explosion if brought in contact with some flame or other heat that exploded the gas given off by the light oil.

"Ships do not burn heavy oil because it is safer than light oil," said Mr. Forsyth, "but because it is cheaper. For many years all the fuel oil used in this city was the light Coalinga oil, and there were no accidents. Within the past few years the heavy oil has been placed on the market in great quantities, and it is now generally used because the price is lower than that of the light oil. The supply of light oil is now very limited, and nearly the entire output is used by the gas companies in the manufacture of illuminating gas. It is the only kind of oil that will serve their purpose. This and the limited supply are what keep up the price of light oil and prevent its general use.

"All the fuel oils are safe if they are not misused. Many vessels have carried and burned oil for years, and the accidents have been very, very few. There is not the least doubt in my mind that the explosion on the "Progreso" was caused by some one's carelessness. It is probable that the person responsible for the disaster will never be found, but I am satisfied that the United States inspectors will make a searching inquiry. The identity of the culpable person may remain a secret, but the cause of the explosion is just as plain to me now as it will ever be. The public has been given a false impression by the talk concerning the test by which the Progreso oil flashed when heated to 101° Fahrenheit. That was a test made in the open air, a

condition that never obtains in the proper use of oil as fuel. Much has also been said about the ventilating pipes attached to the "Progreso's" fuel-oil tank. The primary function of these air pipes is not to afford a means of escape for the gas generated in the tank, but to equalize the pressure on the inside and outside of the tank as the oil is drawn off. Were it not for these pipes the drawing off of the oil would create a vacuum in the tank, and all the air pressure would be against the outside of the tank."

**OIL BRICKS.**

**Investigating the Value of Compressed Oil as Fuel.**

Should the investigations that are now being made by Los Angeles experts interested in the local oil fields prove the value of compressed brick made from crude oil an adjunct will be added to the industry that may prove far-reaching in its effects. This feature embodies a close test of the plan to produce solid oil bricks, devised by E. Osborn of Los Angeles. The points in favor of this production over the use of liquid oil are many, says the Los Angeles Herald, but the most essential are that the bricks can be used in ordinary heating stoves, in furnaces and grates, as they are handled like ordinary coal, and are credited with producing more cubits of heat than the liquid oil that must be forced into the firebox.

Owing to the absence of coal in this part of California and its excessive cost, local oil men say that thousands of gallons will be consumed to produce sufficient stock to supply the demand for fuel. While gas is largely used for heating and domestic purposes, the inventor believes that a few bricks will suffice for heating a house, and that as the heat is almost instantaneous the practicability of brick will be demonstrated in cooking.

Oil men are of the opinion that the many experiments and tests along the line of producing oil bricks will eventually produce an article that will prove satisfactory and that the consumption of these will be an additional stimulus to the oil industry of the coast.

Subscribe for the PACIFIC OIL REPORTER.

**Value of a Well.**

The value of an oil well is supposed to be about three times its net earning power in one year. The earning power of a well is about two barrels less than its output, the value of the oil to be measured on the ground. Thus the earning power of a 40-barrel well, producing 360 days in a year, and with the product selling at \$1 per barrel would be \$13,680, making the well worth \$41,040. On the general basis of one well to the acre, the producing value of 160 acres of similar territory would rise to the enormous sum of \$6,566,400. But, enormous though it be, it is not a fanciful exaggeration. In May, 1899, section 30, 28-28, in the Kern River field, was located under the placer mining law, at a cost not exceeding 10 cents an acre, or \$64 for 640 acres. The sum of \$4,500,000 is a more recent valuation of the same property. The original cost of the locations controlled by the Reed Crude Oil company, in the same field, did not exceed \$100. The present value of these lands, including the improvements, is said to be fully \$2,500,000.

tion of the same property. The original cost of the locations controlled by the Reed Crude Oil company, in the same field, did not exceed \$100. The present value of these lands, including the improvements, is said to be fully \$2,500,000.

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Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..DECEMBER 12, 1902

The railroads of Mexico are anxious to become consumers of oil, and if successful in their efforts, a new and important field will be opened up for the consumption of the product of California and Texas fields, both of which are near the prospective market.

The only oil field in Mexico is at Tampico, where the Mexican Petroleum company of Los Angeles has a few wells. These, however, are few in number and so small in production that they would cut little if any figure when it comes to supplying the railroads' demands. The company has a contract to furnish a large amount of oil to the Mexican Central as soon as the oil can be developed. Whether this can be done is largely a matter of conjecture.

Fuel in Mexico is anything but easy to obtain. The railroads would save thousands of dollars if crude oil was substituted for coal and wood.

The only thing to prevent the adoption of the modern and cheap fuel is the high tariff which Mexico levies upon oil imports. The duty is so excessive that it is at present entirely impracticable to import it for consumption on the railroads. To overcome this, the transportation companies are beseeching the government to remove the duty on oil, at least on the crude product. So far their efforts have been without success, as the Mexican government seems to be disposed to wait and see whether oil can not be found in sufficient quantities at home. To this end the government is doing all it can to encourage the development of prospecting oil lands. In many cases it has made large concessions to syndicates

that would agree to prospect for petroleum.

Aside from the railroads there is an immense market for fuel oil there, and it would be an excellent outlet for the California and Texas crudes should the government throw open its doors. From rumors that have been given out from the capital it is not likely that the government will remove the duty, although it has been argued that it would be advisable to do so, until the prospect fields had become producers. The railroad interests are powerful and they are now exerting their full strength to bring about the desired change.

## American Petroleum.

The possibilities of American petroleum are discussed at length by a writer in Cassier's magazine, and in the course of his article considerable attention is given to the California production because of the marked influence it is having on manufacturing. The demonstration of the value of crude oil as a fuel for manufacturing purposes on the Pacific coast, which is now accepted as a

of genuine enterprise in it also. During the year 1901, 14,250 new petroleum wells were completed, at an aggregate cost of \$21,375,000. Of these 3,220 proved barren and presented a total loss of \$5,000,000. Last year's production was the largest on record, although the value of oil produced was less than that of the year before. This was due to the sharp decline in prices in the Texas and California oil fields. The 1901 production amounted to 69,389,194 barrels, which sold for \$66,417,335, while that of 1900 amounted to 63,620,529 barrels and brought \$75,989,313. The total exports of petroleum in 1901 reached the enormous bulk of 1,062,750,306 gallons, valued at \$71,479,124. This was less than was obtained for a smaller volume exported in 1900, which brought \$73,276,282. In some lines of manufacturing the writer in Cassier's believes that oil will be used permanently hereafter as fuel in preference to coal, and that the change will ultimately "produce effects of considerable importance and of far-reaching consequence in the American industrial world." That is already true in this State.

## Naval Test of Oil-Burners.

The liquid Fuel Board of the Navy Department will test this week the various kinds of fuel oil burners used in this State for the purpose of determining

tained here is something very desirable to know. The Navy tests will probably settle this fact satisfactorily. If they do, it will be a great benefit to commerce, and it will go far toward framing proper regulations governing the use and storage of fuel oil on all steamships. If such regulations had been in force before the changes in the furnaces of the "Progreso" were begun, the disaster which overtook that unfortunate steamship would doubtless never have occurred.—Chronicle.

## ADULTERATING OIL.

No Punishment Too Severe for These Offenders.

It is charged that some of the oil refineries have indulged in the discreditable practice of adulterating Kern-river crude oil while on its way from the wells to the place of its final destination with refuse distillates of a highly volatile nature. One of them was, in fact, caught, so we are informed by a correspondent, by the Selby Smelting company supplying its works with crude oil which had been so dosed. This correspondent suggests that possibly an admixture of volatile refuse distillates with Kern-river fuel oils was responsible for the awful disaster which overtook the "Progreso." This system of adulteration makes fuel oil very dangerous to handle, especially when the tanks containing it are located in the hold of a ship, where a sufficient amount of heat is liable to exist to volatilize the distillates and thus create an explosive compound, says the Chronicle. The charge of fuel oil adulteration is made with such directness and positiveness that it warrants a thorough investigation, and, if found true, no measures can be adopted by the proper authorities too vigorous to stop the vicious practice, which aims directly at the impairment of a great industry and places the lives of the public in unnecessary peril.

## The New Plant.

The new \$100,000 plant of the Oil Well Supply company will be operated in Oil City, Pa., and not in Pittsburgh as dispatches from that city indicate. The old plants at Oil City will be abandoned and the new site is in a much more advantageous location. Much of the property adjoining the new site, available for building purposes is rapidly increasing in value. The principal interests in the Oil Well Supply company are well known men in the oil region and in Pittsburgh.

## Paper Mills to Burn Oil.

Two paper mills at Oregon City have completed arrangements for the use of crude oil as fuel. Contracts have been made with a California oil company and the use of the new fuel will commence by May 1st, next. Both companies now consume 157 cords of wood per day, and will use about 17,000 gallons of oil daily.

## A Sample Letter.

WILLOWS, CAL., DEC. 2, 1902.

THE PACIFIC OIL REPORTER,

Gentlemen: I guess I am some in arrears with my subscription. I presume I am, for you have stopped the paper. I, therefore, enclose a draft for \$2.50 on account, and I want you to send me the paper right along till I order it stopped. I can't get along without it as long as I am interested in oil stocks.

Through the timely information given in the OIL REPORTER, you once saved me at least the price of a hundred years' subscription.

Yours very truly,

proved quantity, is carrying its influence on to the Eastern seaboard and elsewhere in the country. Manufactures in those sections are imitating our example, and even where coal is plentiful are beginning to equip their furnaces with oil-burning appliances as auxiliaries which may prove invaluable to them in an emergency. The recent anthracite coal strike stimulated them to follow this course, so that, in the event of another coal famine occurring in future, either through a similar or some other cause they will be prepared to meet it without suffering.

In the East the Texas oil fields are, of course, the source of supply on which the manufacturers in that section chiefly rely at present for fuel oil, for the reason that their production is, much like our own, better adapted for fuel purposes than for any other. But the writer in Cassier's thinks that they will ultimately be forced to look to the Appalachian region and the Lima (Indiana) fields for a permanent supply of the new fuel, as he doubts the permanency of the Texas field.

The magnitude of petroleum mining is something enormous. According to the United States Geological Survey, 1,587 oil stock companies were organized last year, with a capitalization of \$669,083,000. That indicates the degree of speculation which has entered into the industry. But there is a vast amount

their respective merits. California crude petroleum will be used in the tests, this being the kind of liquid fuel for which it is presumed these devices have been specially adapted. The San Francisco Chamber of Commerce and the California Petroleum Miners' Association have used their influence successfully to bring the test about.

The Navy Department has hitherto been moving slowly in the matter of fuel oil. It is evidently waking up at last to a realization of its importance. Evidently the favorable report which Lieutenant Winchell recently made of his study of fuel oil consumption in the furnaces of the steamship "Mariposa" has had something to do with the present activity of the department. The latter ought to have taken the initiative at the start; when the possibilities of California petroleum as a fuel were beginning to come in evidence, so that the mercantile marine might have reaped some benefit from the results. Up to date the latter service has been giving pointers to the Navy, which is a reversal of the proper order of such matters. However, the proposed tests ought to produce results from which both branches of sea service may profit. The Navy can afford to make experiments which the merchant marine cannot undertake.

California has produced many liquid fuel burners. Which is the best adapted for the crude petroleum ob-



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

The Alaska Development company, composed of Indiana and Puget Sound men, have bonded 70,000 acres of Alaska oil lands to an English syndicate for \$2,500,000, based on an agreement that the syndicate shall spend \$50,000 a year in developments. The chief value of these lands lies in the recent striking of a gusher 60 miles south of Valdes and 10 miles east of the Copper river.

### KERN

The Chanslor-Canfield-Midway company is drilling on sections 6 and 21 in the Midway.

J. W. Stroud is the president of the new organization formed by the Burks Oil company, operating at Midway.

The Lucky Boy, operating in Midway, will drill deeper to increase their output. It is now producing about 50 barrels a day.

There has been a perceptible increase in the shipments of oil from McKittrick within two weeks. Last Tuesday 22 cars were shipped.

The old Kern Crown company has been sold to residents of Salt Lake, and is now known as the Utah-Midway. It is sinking a hole on section 23-32, 23.

The San Francisco-McKittrick Oil company has completed their pipe-line to Olig, and will soon begin shipping their oil. Five and five-eighths casing was used to build the line.

The Southern Pacific company has

contracted for the erection of three more oil tanks at Olig terminal, equal in capacity to the one built last July. Each one will hold 55,000 barrels. Work has already commenced on these tanks.

Colonel Spellacy, who has a contract to drill a well for John M. Wright on the land recently purchased northwest of the Bay City company's holdings, will begin work in a few days. The ground is now being prepared for the erection of a rig.

The Union company has finished an immense storage reservoir in the Kern River district. It is 250 feet square and 27 feet in depth, concrete lined, and of a capacity of 200,000 barrels. The Standard is building three reservoirs of equal size.

The Uncle Sam company, which pioneered magnificently but disastrously in the Kern River field when the district was in its infancy, is in financial difficulties at present, according to the Bakersfield Californian. At the time it moved to Kern county the Uncle Sam had a number of producing wells in the Los Angeles field and its stock was worth 75 cents per share. It still has the same wells, but the interest upon the indebtedness incurred by reason of the branching out, eats up all the profits derived from them, and the stock is a drug on the market at half a cent. The company owes more than \$30,000, and the net income derived from the sale of its oil is only slightly in excess of \$22 a month.

The old Laymance water pipe-line, which has been the source of supply for

the McKittrick district, passed with the Giant and other properties into the hands of the Associated. Rates have recently been raised to a price that is deemed practically prohibitive, and efforts are being made to obtain water from other sources. The Chanslor-Canfield-Midway company, which serves the Midway, has under consideration the matter of laying a branch to the older field, and undoubtedly will if sufficient encouragement is received. The project of a company that bored water wells at Lo Kern with the object of pumping into McKittrick may also be revived. Competition has been invited and it will probably be secured.

### SANTA BARBARA.

The activity at the Western Union field continues unabated. On Tuesday last Supt. Crandall was trying to get an extra crew of carpenters, but there was not a man to be had. Just now the superintendent is busy placing a new boiler in position which will supply power for nearly all the pumping plants that are now in operation.

Engineers are engaged now in surveying a route for a pipe-line from the Pinal oil well, the scene of the latest strike, to the Pacific Coast Railroad, three miles distant. Neither is it beyond the range of possibilities that the line may be extended to the Betteravia sugar factory ten miles distant. The sugar company has already contracted with the Pinal people for 500 barrels of oil at \$1 a barrel—a price in advance of market quotations. The Pinal oil will be used in the sugar company's gas engines for the irrigation pumps. The oil will be supplied as soon as pumping begins, which will be in two or three days. The pumps are already on the ground and are now being put in place. The ground is now being cleared for well No. 2, which will be started at once. The timbers are already being gotten ready so that there shall be

as little delay as possible. The first big storage tank was hauled out last week and placed in position.

### MONTREY.

The motive power at the Salinas Creamery is now generated by crude oil at a cost of not more than half the price of wood before the oil was introduced. The oil at the creamery nets that concern 81 cents per barrel.

### SAN BENITO.

The Ladd Oil company, near Emmet, are having much trouble. The casing shoe broke, and shoe and casing had to be pulled from the well. The water is now pouring over the top. The 9½-inch casing is in bad shape and will also probably have to be cleaned out. The same company is also drilling another well on the Croxon ranch.

### MENDOCINO.

The well at Point Arena is now 880 feet deep, with 7-inch drive pipe. The drill is in shale. There is lots of gas.

### MARIN.

The Bolinas Bay company is down 1,600 feet on well No. 2, with 5½-inch casing.

### SANTA CLARA.

Work has been resumed on the wells at Moody Gulch, and oil shipments have been resumed.

The Lacy company of Los Angeles has just completed a contract for the erection of an immense oil tank at Gilroy. It is 47 feet in diameter and 20 feet high, and has a capacity of 225,000 gallons.

The Orchard Oil company, which is boring a well near Los Gatos, struck the third pocket of gas a week ago Wednesday morning at 5 o'clock, and the pressure was so great that it threw the big drill from the well, the great force shaking up the derrick generally. The well is 1,300 feet deep. The gas reached was so strong that all work ceased until daylight.

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Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

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**THE PEERLESS.****Preparing to Greatly Increase Its Output of Oil.**

About a year ago the Peerless Oil company found itself unable to obtain a satisfactory settlement with the United Oil Producers for oil furnished that company. The amount of the indebtedness was nearly or quite \$20,000.

The only means to obtain satisfaction was to take over the business of the United Oil Producers, fill their contracts then existing, make new ones, and thus save the Peerless Oil company from considerable financial loss.

This was done forthwith, and for a year or more the Peerless has been conducting most successfully the business formerly transacted by the United Oil Producers, and has successfully managed the branches which had been established at Stockton, San Jose, Oakland, San Francisco and elsewhere.

The retail business thus entailed was not according to the original plans of the management of the Peerless company, and when it had conducted this business until it had fully reimbursed itself for former losses, it accepted an offer from the Standard Oil company, and turned over to that company all the plants it had established in various places, and all the new as

well as old contracts it had on hand to fill.

In return the Standard has agreed to take from the Peerless company oil to the amount of 5,000 barrels a day for a period of five years, at least, at a most satisfactory price.

The Peerless has now an output of over 3,000 barrels a day, and

cents a share by April, if not sooner.

The company has no trouble or expense as to marketing its product, its entire lookout being simply to be able to produce and deliver to the Standard's tanks at Kern River 5,000 barrels daily of marketable oil.

This amount of oil is half the

It is not known what sum the Peerless will receive for the entire amount of the production as it is understood that the price varies, increasing from year to year. Even at the low price of 25 cents a barrel the company would receive monthly \$37,500; yearly \$450,000, and in the entire five years \$2,250,000—quite a snug sum to receive from 160 acres of land that four years ago went begging at \$2.50 an acre.

Do you want to sell oil well machinery and supplies?

Have you oil land to sell?

Do you want to buy oil land?

Do you want to sell the stocks of a first-class oil company?

If you do then send in your advertisement for the New Year's edition of the PACIFIC OIL REPORTER.

An edition of 25,000 copies will be printed, elegantly illustrated.

Advertisements must be sent by December 29th.

new wells are being drilled as rapidly as possible, so that soon after the first of the year the Peerless will be delivering 5,000 barrels a day, and will be able to continue this delivery through the period contracted for.

The company is now paying a dividend of 10 cents a share,

which will be increased to 25 amount the Standard will be able to send through its pipe line to Point Richmond until it installs another set of pumps in its pumping stations.

Five thousand barrels a day means 150,000 barrels a month, 1,800,000 a year, and 9,000,000 barrels for five years.

**Discarding Coal for Oil.**

Work began this week in transforming the steam schooner "Alcatraz" into an oil burner, and, following her, the "Alcazar" will be changed from a user of coal to an oil-burner. Both steamers are owned by the L. E. White company, prominent in the lumber-carrying trade.

**SOME MEN PAY**

**\$10,000** for an expert to manage their advertising. There are others who pay

**\$5.00** for an annual subscription to **PRINTERS' INK** and learn what all the advertisers are thinking about. But even these are not the extremes reached.

There are men **\$100,000** who lose over a year by doing neither one.

For sample send 10 cents to **PRINTERS' INK**, No. 10 Spruce St., New York City.

# HALFMOON BAY OIL FIELD.

**Most Valuable Oil on Pacific Coast.**

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

1. The advance to par of one stock out of four will return in cash **112** percent on the investment.
2. The advance to par of two stocks out of four will return in cash **225** percent on the investment.
3. The advance to par of three stocks out of four will return in cash **337** percent on the investment.
4. The advance to par of all four stocks will return in cash **450** percent on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

**Trust Fund—The Investor Protected by a Stock Pool.**

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**: Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies. All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

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Our location is 35 miles from San Francisco with tidewater transportation.

THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION:

**TRANSPORTATION, MARKET, PRICE.**

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity.

Investigate this proposition.

Write us for maps, pictures, literature, etc.

**THE DEBENTURE SURETY COMPANY,**  
(INCORPORATED.)

**230 Bush St., Mills Bldg.,  
San Francisco, Calif.**



**OILING DUSTY ROADS.**

**Experiment Tried in England With Perfect Success.**

A week ago a section of the main road at Farnborough, near Aldershot, was treated with oil, and on Saturday a party of road experts and automobilists paid a first visit of inspection. The experiment, though only in an initial stage, promises a great success.

The oil has been applied along three-quarters of a mile of the main road near Farnborough station. The reason this particular road was selected for the experiment was that it is one of the very dustiest among the main roads of the county. The soil of the district is sandy, and, in spite of the fact that part of the road has been reconstructed with what is known as Cherbourg quartzite, it has a thick, mealy dust which retards the progress of all traffic and rises in blinding and suffocating clouds on the passage of any motor car.

To this surface W. J. Taylor, the county surveyor, applied eleven and a half tons of Texas oil a week ago. At each end of the oiled strip lay a white, dusty road; between was a dark-brown stretch, clean, firm, but elastic—a road of linoleum. Of the oil itself there was little or no sign.

A stranger might have remarked on the excellence of the road; he would hardly have guessed at its treatment. There was no smell nor any apparent greasiness—simply an unbroken surface, smooth and welded together. Of dust there was not a trace.

It was a picture to see a powerful motor car, half hidden in its cloud of dust in the distance, sweep on to the oiled surface distinct and vivid. The fastest run raised nothing in the shape of dust. On all hands there was pleasure at the first results of the experiment. The practicability of the oiling system can only be established by tests extending over a considerable time, but meanwhile experts are thoroughly satisfied with the results.

It is pointed out that the treatment with oil may be found not only greatly to improve the roads, but also to effect an economy in their maintenance. Roughly speaking, the cost of oiling the three quarters of a mile was £30. The yearly cost of repairing and keeping up each mile of the road in an ordinary way is £300. It is probably that the oiling will considerably reduce that expense. Certainly the heavy expense of watering would be done away with, and it is practically certain that the road will not wear out so quickly being consolidated and toughened by the oiling process.

Mr. Taylor, the surveyor, is carefully testing all these matters, even going so far as to weigh each hovelful of sweepings from the

oiled section and from a corresponding length of the unoled road.

"Of course," said he, "we want to find out how the oiled road will stand very cold and very hot weather, and we have not had any rain on it yet. Before I say anything definite for publication I shall report to the county authorities.

"Much will depend on how often the road will require treatment with oil, and we have also to find out the exact amount necessary at each application and the best means of applying it. I am proposing to make experiments in other parts of the county. I had the idea of oiling roads in my mind when the proprietors of the County Gentleman offered to make the experiment if the authorities would provide the road; so we joined forces."

Rees Jeffreys, the honorary secretary of the Roads Improvement association, who has been largely instrumental in carrying the experiment through, is very pleased with what has been done. He says that the opinion of motor car experts is that their tires are not likely to suffer from the oil. The further objection that there might be oil splashes is banished by an inspection of the road.

Mr. Jeffreys adds that nearly everyone who knows anything about road traveling and has seen the oiled road is emphatic in its praise.—London Mail.

**SPOILING THE WATER.**

**Waste Oil Worrying Kern Irrigating Companies.**

The different irrigating companies of Kern county have sent out the following circular to oil companies:

The irrigating companies which receive their water supply from Kern River are beginning, with the approach of the wet season, to become apprehensive of the large amount of waste oil that has accumulated in sumps or by seepage along the water shed of the river.

The companies have heretofore warned the oil producers on this point and the existing circumstances have warranted the issuance of the following letter to those engaged in producing oil along the Kern river:

You have heretofore been advised, and we again call your attention to the fact that oil from your wells has either been discharged into or allowed to flow into Kern river with the result that the water in the river has been polluted to such an extent as to materially interfere with its use for irrigating.

From the examination which has been made by our representatives, it is apparent that, as soon as heavy rains come, a large quantity of oil which has been allowed to flow from your wells and deposit itself upon the water shed supplying the river will be precipitated into the stream, and will so injuriously affect the quality of the water as to render much of it unfit for the purposes for which it would be used by those entitled to divert it.

We therefore notify you that unless you take such immediate steps as will prevent the precipitation of this oil into the river, we shall be compelled to ap-

ply to the courts for relief, including the recovery from you of such damage as we have suffered in the past.

The warning has been heeded and the companies warned have taken steps to prevent any more trouble from oil.

**Tank Fire Protection.**

An invention has been made to provide means for the immediate extinguishing of fire in oil-containing tanks, and thereby prevent the liability of heavy pecuniary loss and the loss of life which, as is well known, sometimes occurs when petroleum contained in large tanks is set on fire, usually by lightning. Where a number of tanks are located in close proximity the igniting and burning of one tank is generally followed by the loss of all the rest, which the inventor of this apparatus thinks would not be the case if his apparatus were brought into general use. The invention, considered broadly, consists of an oil-containing tank, in which is a vertically movable plate or disk of slightly smaller diameter than the interior of the tank, with suitable devices for normally retaining the disk in the bottom of the tank and means to automatically elevate the disk when the retaining devices are released in case of the oil taking fire. As the disk rises through the oil the latter flows downward

around the edges, until finally there is a thin sheet of burning oil on top of the disk, which is allowed to burn itself out. The elevation of the disk is accomplished by a series of weights and cables, which are set in motion by the burning of a cord or fusing of a soft wire in the heat of the flames.

**Pacific States Mining and Investment Company.**

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Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

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Stock issues underwritten on the American or London plan.

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Address for all information, Pacific States Mining & Investment Co., 324-326 Post St., San Francisco, Cal.

# A BONANZA INVESTMENT

## The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4½ CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

## THE AMERICAN INVESTMENT CO.

2 KILBY ST., - - BOSTON, MASS.



## California Stock and Oil Exchange.

WEDNESDAY, DECEMBER 10, 1902.

Business on the board has been fairly active during the past week, with a slightly better feeling all along the line and an advance in several of the leading stocks.

Home has passed the \$3 mark—probably on the report of a large contract for the delivery of oil having been entered into by the company. Peerless has improved in price, but is still below the figure of two weeks ago. Four has marked an advance—selling up to 60 cents. 1,000 Apollo went over the board at 28 cents—a considerable advance over the last recorded sale. Kern is somewhat stronger, several lots changing hands at \$4. More money is being offered for Thirty-Three, and what little stock seems to be on the market is firmly held at \$8. Some inquiry for S. F. & McKittrick has brought out higher bids, and \$1.60 is now offered. There has not been much doing in Monte Cristo during the week, though the price has stiffened a little from the extreme low point of the break of last week.

In water stocks, Contra Costa is higher, with \$69.50 bid. Central Light & Power, Equitable, and S. F. Gas & Electric are all slightly better. Sugar stocks continue firm, with advances in Honolulu, Hutchinson and Makaweli, Hawaiian Commercial sagged slightly from the highest point reached.

In Bonds, S. P. of Arizona, 1909, sold at \$113.50.

### New Incorporations.

The following articles of incorporation were filed last week in the office of the Secretary of State:

Live Oak Oil company. Principal place of business, San Francisco. Directors: J. Hoeges, J. W. Stevens, H. Mills, O. E. Falsh and M. L. Culver. Capital stock, \$5,000; subscribed, \$300.

Brookshire Oil company. Principal place of business, San Francisco. Directors: P. Moore, P. O. Tietson, T. J. Brookshire, D. D. Barnard and H. Bahr. Capital stock, \$500,000; subscribed, \$25,500.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, December 10:

APOLLO.			
1,000 at \$	28.....	\$	280 00
FOUR.			
50 at	58.....		29 00
400 at	59.....		236 00
1,850 at	60.....		1,110 00
HANFORD.			
3 at 90 00.....			270 00
HOME OIL.			
100 at 2 90 (S 90).....			290 00
100 at 3 05 (S 90).....			305 00
200 at 2 95.....			590 00
50 at 3 05.....			152 50
INDEPENDENCE.			
88 at 05.....			4 40
800 at 06.....			48 00
400 at 07.....			28 00
1,000 at 06 (B 90).....			60 00
1,000 at 08 (B 90).....			80 00
KERN.			
60 at 4 00.....			240 00
50 at 4 00 (S 5).....			200 00
5 at 4 25.....			21 25
KERN RIVER OIL.			
10 at 8 00.....			80 00
50 at 8 75.....			437 50
LION.			
2,850 at 06.....			171 00
250 at 05.....			12 50
MONARCH.			
25 at 16.....			4 00
500 at 19.....			95 00

MONTE CRISTO.			
100 at 1 37½ (S 30).....			137 50
1,100 at 1 37½.....			1,512 50
50 at 1 40.....			70 00
100 at 1 35.....			135 00
OCCIDENTAL OIL.			
100 at 14.....			14 00
300 at 15.....			45 00
PEERLESS.			
60 at 11 25.....			675 00
50 at 11 37½.....			568 75
S. F. & MCKITTRICK OIL.			
100 at 1 75 (S 90).....			175 00
SOVEREIGN.			
500 at 27.....			135 00
133 at 25.....			33 25
STERLING.			
100 at 1 62½.....			162 50
200 at 1 65 (B 30).....			330 00
SUPERIOR.			
2,500 at 03.....			75 00
THIRTY-THREE.			
170 at 7 50.....			1,275 00
100 at 7 75.....			775 00
80 at 8 00.....			640 00
TWENTY-EIGHT.			
355 at 1 60.....			568 00

16,939 Shares Amount \$12,070 65

HUTCHINSON SUGAR.			
25 at 17 75.....			443 75
10 at 18 50.....			185 00

35 Shares Amount \$628 75

S. P. OF ARIZ. 1909 6's.			
1,000 at 1 13½.....			1,135 00

### Stock, Bond and Investment Syndicate

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318 PINE STREET, Room 5  
SAN FRANCISCO, CAL.  
TELEPHONE MAIN 1552.

### J. B. HILL

Member Producers' Oil Exchange  
Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
Member of Producers' Oil Exchange and of San Francisco Stock and Exchange Board

### Joseph L. King.

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Member of San Francisco Merchants' Exchange and Producers' Oil Exchange.

### Joseph B. Toplitz

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San Francisco, Cal.  
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ANALYSIS OF ASPHALT & FAT & LUBRICATING OILS

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50 Percent a year. How to make it. Write J. D. Johnston, Newport, R. I.

### DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON DECEMBER 1st declared a dividend No. 9, of ten (10) cents per share, payable January 1, 1903. Books close December 26, 1902. The address of stockholder W. L. Taze is desired. GURDON BRADLEY, Assistant Secretary.

# JOSEPH B. TOPLITZ,

MEMBER CALIFORNIA STOCK AND OIL EXCHANGE  
MEMBER TONOPAH STOCK EXCHANGE

Telephone Bush 385

Bank Reference: California Safe Deposit & Trust Company, S. F.

RECOMMENDS OF

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"Home," "Kern" and "Monarch" (of Arizona).

## Tonopah Mining Stocks:

"Montana Tonopah."

## California Gold Mining Stocks:

"Cecil" and "Grass Valley Consol."

and other marketable and good and dividend-paying stocks.

Send for a Copy of  
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Tonopah Map  
Price List

Whenever there is any notable development in a company or change in the price of stocks, my clients interested in same at once receive such information by wire or mail, without further charge. I also engage to keep you fully posted on your purchases made through my agency and thus oftentimes put you in a position to acquire desirable stock at low prices.

Write to the undersigned for information regarding Oil and Mining Stock Investments paying regular dividends, returning 10 percent to 24 percent per annum; also for suggestions as to the best speculative purchases. Correspondence invited. Address:

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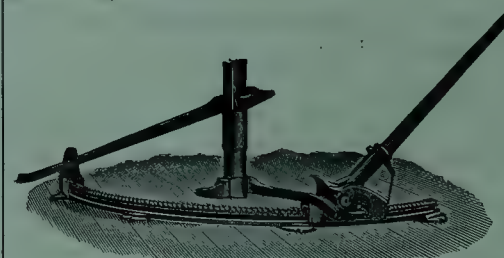
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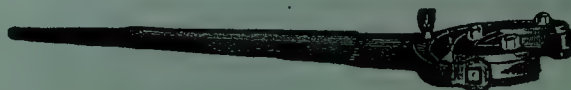


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## The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

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J. BARRETT, Allegheny, Pa.



## A NEW EPOCH.

Oregon Manufacturers Now Use  
Oil for Fuel.

The bulk of the coal used in California and in fact all over the Pacific coast comes from the North—from Washington and Oregon. There coal is cheap, and is in general use except in those localities where wood is so plentiful and cheap that it has supplanted coal.

Now it looks as if California oil was to supplant both coal and wood, in fact it has already supplanted them in a great measure, and every freight train that now enters the Webfoot State has with it one or more cars of crude petroleum, some of which is to be used for fuel oil in the mines and manufactories of the North and some to be used for gas-making in the cities of both Oregon and Washington.

The Northern trade in oil has become so extensive and the business is increasing so rapidly that the Union Oil company has been compelled to use its barge, Santa Paula, for transporting oil from Ventura county and from its tanks on the San Francisco bay to Portland.

Her first trip to Portland was finished last Sunday, when she crossed the bar in tow of a staunch tug, and discharged her cargo of 8,200 barrels of oil into the new tanks there.

In crossing the bar her rudder was slightly damaged, but no difficulty is expected on her subsequent trips.

The Santa Paula will make three trips a month to Portland until the steamers are completed that are now in the hands of the builders. These steamers are the "Argyle," 30,000 barrels capacity, which will be ready for sea by the middle of January, and the "Lyman Stewart," 10,000 barrels capacity, with a speed of 12 knots, and will be ready for sea by the middle of March.

The "Argyle" will be used principally for the Hawaiian trade, making coast-wise trips whenever necessary. She will be so arranged as to tankage, and loading and unloading facilities that she can be filled and emptied in ten hours.

The ship "Fullerton," has now made two very quick trips to the islands, the first in forty-one days (round trip), the second in forty-two days. These are exceptionally quick trips and prove the judgment of the directors of the Union Oil company in making the experiment of building a tank sailing vessel—the first of her kind.

It is probable that another tank sailing vessel will soon be ordered.

The Union Oil company has succeeded in building up a big trade in crude petroleum in the North, and this trade bids fair to rapidly increase as the superiority of oil over other fuels is practically demonstrated.

## Oil Burner at High School.

Ralph Jackson has installed one of his patented practical crude oil or distillate burners at the Fullerton high school to heat all the rooms in the building. Coal and wood used in the furnace would not heat the building satisfactorily, but the new burner does the work to perfection, only one burner being used. It is a great saving of

fuel and will not consume over ten gallons of crude oil daily, which is economical heating with oil at only \$1 a barrel.

## CYGNET PETROLEUM CO

Capital.....\$150,000  
50,000 shares at \$3.  
Location—Fresno county.  
Directors—Chas. L. Fair, president, Blits W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McElroy, secretary.  
Office—361 Parrott Building.  
Tel.—South 184.

## STANDARD ROCK OIL COMPANY.

Capital.....\$500,000  
Treasury stock.....\$100,000  
Location: 93 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Rnsign.  
Office: 475-76 Parrott Building, 833 Market street, San Francisco, Cal.

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## Southern Pacific Company

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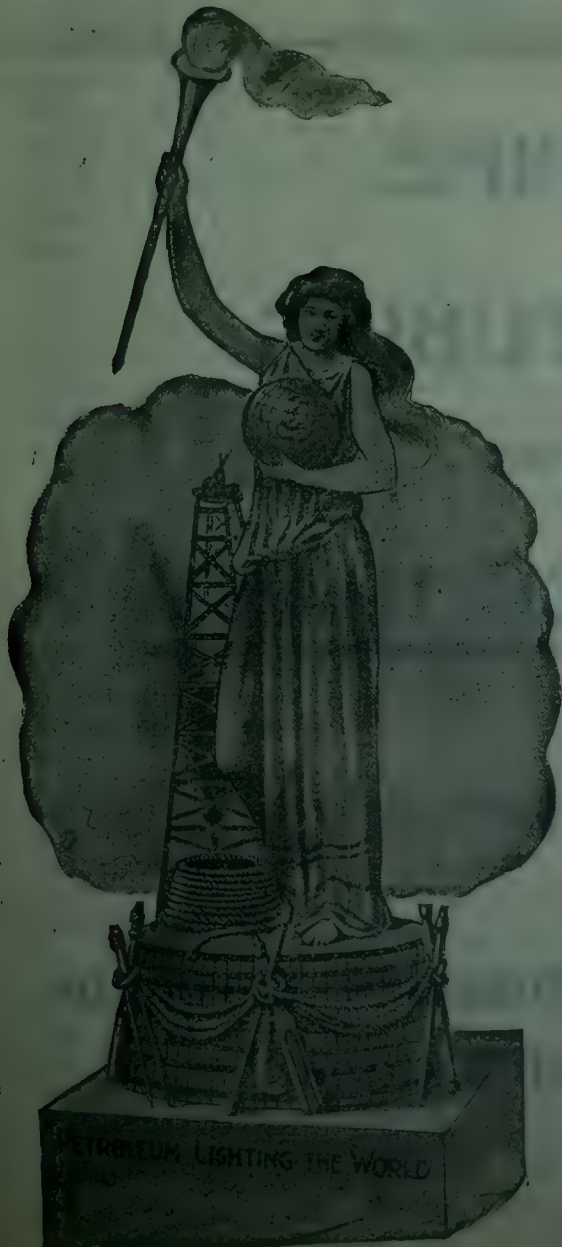
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 7.

SAN FRANCISCO, CAL., DECEMBER 19, 1903.

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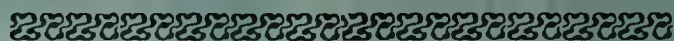
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For sale by Jobbers of Oil Well Supplies Throughout California and the Pacific Coast.



# PACIFIC OIL REPORTER

VOL. 4. No. 7.

SAN FRANCISCO, CAL., FRIDAY, DECEMBER 19, 1902.

PRICE, TEN CENTS.

## THE ELMORE PROCESS.

### Oil Proved to Be of Great Use to Metal Miners.

#### A Process Invented By Which with Petroleum a Great Increase is Obtained in Values Secured from Low Grade Ores.

The California Petroleum industry is interested in every new or growing field of oil consumption. It is, of course, especially interested in those phases of consumption in which quantity is a large factor, but there is incidental interest in every use of crude or refined oils in the wide range of industrial arts, whether the consumption is relatively large or small.

One of the most interesting new ways in which petroleum oils have been found of service to industry is that of the Elmore process for the concentration of certain ores by the use of oil. Oil has already proved to be a great aid in several ways to the sister industry of metal mining. It has, within a year, cut in half the fuel bills of many extensive Western mines and it has done the same thing for some of the largest Western smelters. At the Selby smelting works crude petroleum supplies the necessary intense heat for no less than forty-seven ore-reducing furnaces of the reverberatory and roasting types and the metallurgical world feels that it is on the verge of success in adapting petroleum to the blast furnace—a revolutionary thing that would be of incalculable value to the mining industry of western America.

The Elmore process will never be a large consumer of petroleum oils and it is the metal miner who is mainly concerned with its technology and commercial success, but it has a good deal of interest for the petroleum producer who cares about everything relating to his industry. The technical features of this process were described and illustrated in the PACIFIC OIL REPORTER of October 3rd last and attention is here given to it again on account of the interesting experiments with a small laboratory

plant in progress at the University of California under the direction of Professor S. B. Christy, dean of the College of Mining of that institution, who made an extemporaneous preliminary report on the process at

the recent annual convention of the California Miners' association at San Francisco.

He explained that the fundamental principle of the process was the mysterious and remarkable affinity that a heavy petroleum oil has for the metallic contents of many ores when they are wet. When such an ore is finely ground, thoroughly wet and mixed with such an oil, the oil will stick to the minute particles which carry the metal values and bear them with it to the surface of the water in the vessel. The earthy contents of the ore, which constitute the waste matter which it is the purpose of all forms of concentration to get rid of, sinks to the bottom, as the oil has no affinity for it. Thus the oil floating on the water carries most of the values and the latter will float off with the oil. By this means the valuable contents of an ore can be quickly and cheaply separated from the waste on a large scale with the proper mixing apparatus and a supply of oil and water.

The next step is that of getting the concentrated values from the

oil, and this is the most difficult and expensive part of the process. The problem is thus similar to that of the cyanide process for extracting gold from crushed ore. It is easy to put the ore in a cyanide solution, which dissolves the gold, but it is not so easy to recover the gold from the solution. The affinity upon which the Elmore process depends was discovered thirty years or so ago, but no one before Elmore, in 1900, devised a practicable and economical way of separating the oil and the values. To remove the oil by dissolving in gasoline is not economically feasible. Elmore devised a centrifugal machine which does the work perfectly, and this is the distinctive feature of this process. The other features of an Elmore plant consist mainly of devices for mixing the material with the oil and removing the latter, with its load of mineral, to the centrifugal machine. The accompanying diagram illustrates the principal features of a plant. The mixing is done continuously and automatically in a revolving drum to which the watery pulp flows from a crushing

the results here and at the experimental plant in London, to which ores have been sent from all over the world, have been one of the new wonders of the mining world. It will enable the working of a great many low-grade mines whose ores could not be made to pay by any other process, and it is especially adapted to sulphide copper ores.

Prof. Christy investigated the process when in England some time ago, and the company gave him a small laboratory plant for the university with which he has been conducting a series of experiments with Pacific coast ores. In his recent talk he stated that no one understood the affinity between oil and certain minerals. It was a molecular cohesion, and some thought it due to electrical influences. The oil used in England was of about the consistency of cylinder oil, and is a residue from the refining of paraffine oil. He has so far used in his tests the same oil, but will make a series of tests with California oils, and he said that if they prove adaptable to the process it would be an important thing for the California oil industry. He had found the process strikingly successful with low-grade copper, silver and molybdenum ores, and observed that

there were some very interesting and peculiar phenomena connected with the process, and various problems that it would take a good while to work out. He expects to work out some of these problems at the

university.

This new process is likely to soon be in operation at certain large California and other American mines, and will attract much attention.

#### More Oil Tanks.

The Southern Pacific is increasing its tankage on the San Joaquin division. A huge tank of 55,000 barrels capacity was completed a few days ago at Santa Barbara. Work will be commenced at once on one of 15,000 capacity at Mojave. Six new tanks of 55,000 barrels each are being erected at Oil City in the Kern River field, where the company already has eight completed. One of 5,000 has been erected at Goshen, one of 15,000 at Fernando, and three of 55,000 each at Olig are in course of construction. It is expected that a large tank will be erected later in Bakersfield.

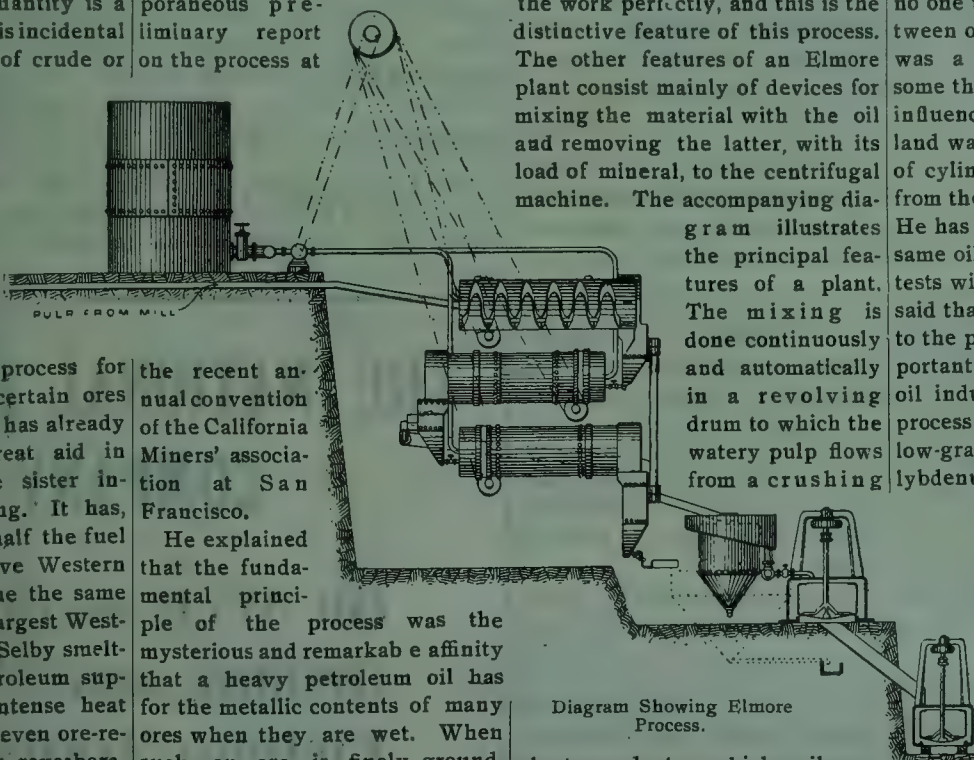


Diagram Showing Elmore Process.



## RUSSIAN IRON WORKS.

### Petroleum Residuum Successfully Employed In the Iron and Steel Industries.

#### The Methods of Using the Liquid Fuel.—How the Oil Is Transported and Stored.—Unfavorable Climatic Conditions.—The Use of Oil Becoming General.

The employment of petroleum in the iron and steel industries has increased considerably in Russia during the past few years, and this increase the Nobel Gesellschaft mainly occasioned by the employment of the residuum in the furnaces of their factories in St. Petersburg. Shortly thereafter the Metallurgische Gesellschaft in Moscow began with the employment of the same in the Martin furnaces, and since that time a considerable number of factories have been established in the Volga district, which use petroleum residuum almost exclusively as a fuel.

The burning of the petroleum takes place by means of a dissipater in a furnace equipped with fireproof brick, upon which the mass is thrown, finely distributed by a stream of steam or compressed air, so that it is burned in the form of a gaseous substance. For this purpose Korting's well-known bellows serves, which was used for a long time for the purpose of cooling hot condensed steam. This apparatus consists of a cylinder-shaped conical pipe, in which an archimedic screw is placed. The oil brought into this pipe by pressure must follow the windings of the screw, and, speeded at departure by rotary motion, it scatters in firing.

The firing apparatus consists of a steam pump which forces the oil into a pipe from which it flows into a second pipe. Above these two pipes is a heater which utilizes the steam emitted from the pump. The temperature of the fluid amounts to from 80° to 90° C. Between the two pipes connection is constructed, which serves to heat the fuel contained in the two pipes for its further progress. The burning is regulated by means of a hand pump, through which one secures a greater or smaller pressure at the entrance of the oil, according to the speed of the same, and at the same time the amount of the oil admitted into the fuel can be regulated.

The arrangements employed in the ovens of the iron works for the purpose of heating by means of petroleum can be divided into two classes:

1. Contrivances by which the petroleum in fluid or gaseous con-

dition is consumed without dissipating.

2. Contrivances by which the petroleum is dissipated.

With the first the burning is in a burning chamber, situated outside the engine room; in the second, the burning chamber is generally situated within the engine room.

The method of burning the petroleum in a fluid or gaseous condition is employed in the heating furnaces of Nobel's factories, of the Metallurgische Gesellschaft, in Moscow, and the company in Sormowo. The petroleum is heated in the open air under the same conditions as in annealing furnaces. For the purpose of kindling, the troughs are filled with oil and covered with sticks of wood at proper intervals, and these are set on fire, whereupon the oil takes fire at once. If the oven is insufficiently heated, the burning is imperfect; the smoke disappears thereupon little by little. The air required in the burning is admitted laterally through openings put in a door, which, for the purpose of regulating, can be opened to the required extent.

The apparatus employed in the factories of Saratow for the purpose of burning petroleum in a gaseous condition, consists of a horizontal conductor arranged above the fire chamber from which the petroleum is conducted through a starting pipe into a small pipe from which conducting pipes of the same diameter lead to a vault. The influx is regulated by means of a slide. For the purpose of kindling the fuel is reduced to a minimum. After the walls have been heated, the admission of air is increased little by little. When combustion is in progress the oil is converted into gas and is forced through the burner. Then it burns with an elongated flame which reaches to the furnace. The elevation of the supply is regulated according to the thickness of the burning material and is adjusted to the temperature desired; it ranges between 1 and 2 m.

Both of the systems described can be employed for direct heating with petroleum. They are distinguished by their great simplicity, but the escaped gases can be

used only for heating steam boilers. Moreover, the temperature is limited in the same degree as with oil stoves, since the two combustible elements are carbon and hydrogen and the combustion temperature of the hydrogen in the cold air at Dowson amounts to only 1,970°, while on the other hand that of the carbon amounts to 2,040°; the temperature, however, never amounts to more than 1,600° in theory, and in reality it never attains this height.

A higher temperature can only be reached by a greater heating of the air, and for this purpose an apparatus serves which was constructed by a Russian, Prof. Krupsky, and formerly employed only in the glass factories; but this is likewise serviceable in metallurgical establishments. In this apparatus the petroleum is conducted through a pipe into the upper part of a chamber, where it is converted into gas and burns under the admission of air, and is conducted into the lower part of the same chamber; a second regeneration chamber serves for heating the air which completes the burning at the entrance into the furnace. There are two rows of the same sort of chambers established whereby the function is regulated by a set apparatus, according to the kind of Siemens' furnace used. The burning of pe-

troleum by dissipation was first employed in a Martin-Siemens' furnace by the Metallurgische Gesellschaft in Moscow. The burner employed for this consists of an inner pipe into which the petroleum is conducted and which is encircled by an outer pipe terminating in a conical point into which compressed air is admitted through a pipe branching from the same. This contrivance is not directly joined to the mason work inclosing the fire chamber, but is extended by a system of pipes for the circulation of water which impedes the kindling.

The Martin-Siemens' furnaces of the Moscow works are arranged as follows: The regeneration burners placed under the fire chamber are only two in number, since they serve only to heat the air. On both sides of the same perpendicular heat canals are constructed, which combine the burners with the fuel. At the upper ends of the air admitter there are two burners on the vault or the perpendicular walls which are parallel to the long side of the furnace and lean against the reservoir. By inserting a device the two chambers can be joined as well to the outer air as to the chimney, so that the two dissipating groups can work alternately. A fifth burner placed in the center of the furnace is uninterrupted

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in activity and is employed in every installation of this kind, so that its flame is always in accord with the arrangements of the other burners. The compressed air can be replaced by steam for the purpose of dissipation, which is introduced under a pressure of 4 kg.; the middle burner can also be left out without disadvantage. For the regulation of the admission of air and of the draught into the chimney automatic dampers serve as such and are regulated by the consumption of steam, compressed air and petroleum. The installations described above are applied to the Martin furnaces of 15 to 25 t. The kind of arrangements are different in single works, but the principle arrangements and the functions remain the same.

Herewith it is to be observed that the arrangement of two air chambers in the petroleum furnaces guarantees a more complete combustion of the fuel than with that of four chambers in gas furnaces. With the latter only half of the air used for burning is employed, while the other half is used up in a cold condition in the gas developer; on the other hand,

the heat generated by heating the gases requires very little rendering strength since this abandons the generation of gas in a heated condition. In the petroleum furnaces, on the contrary, almost all the air employed for burning goes through the chambers, and one is therefore in a position to attain the same results as in a gas furnace where a double regeneration of the primary and secondary air

takes place. Moreover, the rendering power through the double regeneration at a temperature of 1,500°, amounts to 90 per cent, theoretically, while the regeneration through the secondary air and gas, as it is generally used, yields a theoretical rendering power of 66.3 per cent. The majority of petroleum furnaces for rolling mills are, like the Martin furnaces, provided with two

chambers, and the two burners at each end of the furnace, which latter are placed above the air inlets. The steam injectors are not always practicable with this arrangement, since they oxidize the metal. One therefore advantageously employs compressed air whereby the pressure which does not usually exceed 50 cm. can be attained through an ordinary ventilator.

(Continued on page 9.)

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Consumes Less Fuel than any other.

Dry Steam always assured.

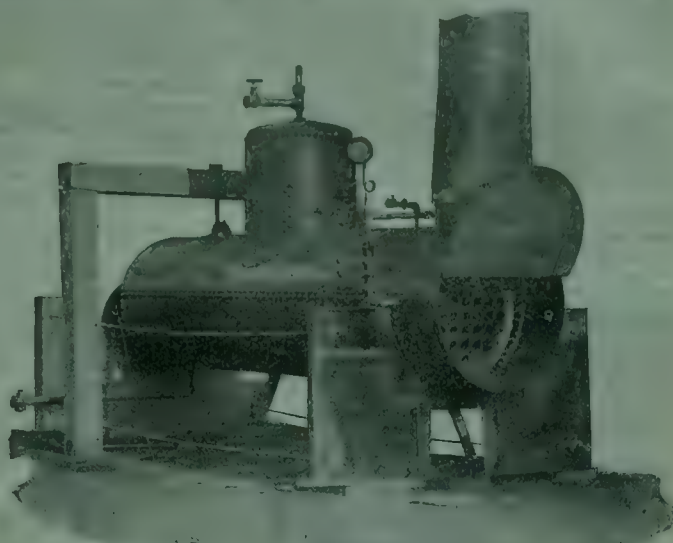
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COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
	Gallons	Value	Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and a l other from which the light bodies have been dis- tilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	BbIs.	Value
September, 1902.										
Quebec, Ontario, etc.	800	\$,8								
British Columbia	158	9			100	\$23	1,832	\$429		
Costa Rica			110	\$19	1,770	275				
Guatemala					5,300	1,011	280	99		
Salvador					2,167	395	757	229		
Mexico					3,710	665	7,176	1,734		
Japan							150	57		
British Australasia							2,08	577		
French Oceanica					450	85				
German Oceanica					160	46				
Alaska			150	21	7,920	1,431	50	33		
Hawaiian Islands	19,052	550	22,894	3,195	15,034	2,880	270	168		
Tutuila					300	55	27	14		
Total	20,010	\$607	23,154	\$3,235	37,411	\$6,786	12,850	\$3,340		
October, 1902.										
British Columbia							156	\$107		
Costa Rica					580	\$109				
Guatemala					4,550	879	40	20		
Honduras					280	61				
Salvador					8,811	1,593	50	35		
Mexico					550	74	23	8		
Columbia					550	80				
French Oceanica			9,130	\$1,198	770	154				
Japan							742	168		
British Australasia							500	112		
Alaska					1,650	214				
Guam					4,620	872				
Hawaii	597,912	\$19,930	44,850	5,086	28,740	5,477	2,625	823		
Tutuila					20	5				
Total	597,912	\$19,930	53,980	\$6,284	51,121	\$9,520	4,136	\$1,273		
November, 1902.										
Costa Rica					1,350	\$272				
Guatemala					4,550	903	200	\$75		
Honduras			440	\$66	800	150				
Nicaragua					190	40				
Salvador			720	131	4,150	820	40	26		
Mexico					200	30	579	225		
Chili							2,000	515		
Ecuador					300	58				
Peru							101	57		
Japan							307	150		
British Australasia							1,663	532		
All Other British Oceanica					140	28				
German Oceanica			7,810	882			416	229		
Alaska					2,131	328	1,080	430		
Hawaii	1,364,000	\$43,100	23,377	3,074	107,581	15,265	11,203	5,059		
Tutuila					1,360	280				
Total	1,364,000	\$43,100	32,347	\$4,153	122,752	\$18,174	\$17,589	\$7,298		

In 1901 the total exports from San Francisco for September October and November were 88,415 gallons, valued at \$19,097.

In 1902 the total oil exports for the same months were 2,337,262 gallons, valued at \$123,700.



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..DECEMBER 19, 1902

On January 3rd the PACIFIC OIL REPORTER will The New Year issue its annual Edition New Year's edition. This number will consist of forty-eight pages, and will contain articles upon every oil field in the State. There will also be articles from some of the best known scientists, geologists and chemists in the State upon subjects connected with various branches of the oil industry.

The edition will contain half-tone reproductions of recent photographs of all the various fields. There will be maps of the Kern River, McKittrick, Sunset, Midway and Coalinga fields, each of which is brought up to date. These maps are very valuable, and if the edition contained nothing else would cause it to be in great demand.

We can truthfully state that the New Year's edition of the PACIFIC OIL REPORTER will be the most valuable publication ever issued either on the California or any other oil field.

## Flash Test of Fuel Oil.

The California Petroleum Miners' Association has started the ball rolling for the legal establishment here of a higher flash test of crude oil used as fuel, which is evidently needed. It has been impelled to adopt this course because of the revelations made of the low grade of the oil with which the tanks of the unfortunate steamship "Progreso" were supplied, to which fact and to the lack of proper ventilation the explosion of her oil tanks is now generally attributed. The association has, therefore, petitioned the board of supervisors to pass an ordinance requiring that "all oil furnished for fuel purposes in boilers" shall stand "a flash test of not less than 150° Fahrenheit." The ordinance now in force fixes the flash test at 110°; but this is regarded as too low. Besides, there is a disposition on the part of large dealers

in fuel oil to adulterate the heavier grades of crude petroleum which do not flash at 200° Fahrenheit with lighter oils which flash at much lower temperatures than the legal limit. This is done on the assumption that the mixture will retain permanently the flash test established by the combination. Many of the best experts in oil condemn the practice, however, and assert that after the mixed oils cool the separation of their constituents sets in, ending in the lighter oils ascending to the surface and the heavier ones settling to the bottom of the tanks. Then follows the rapid disintegration of the more volatile elements in the combination and a generation of gas, which, when mixed with the air in the tank, becomes a dangerous explosive compound.

The Petroleum Miners' Association advocates a higher flash test, because it will give less room for the use of light oil adulterants in the crude petroleum sold for fuel purposes. The object of its petition is the protection of the oil miners' interests; but it is equally in the interest of the safety of the public, which the use of a low flash-test oil as fuel puts seriously in jeopardy. The wells of the State are producing an abundance of heavy crude petroleum which will not flash under 200° Fahrenheit. Oil of

against William W. Klinger and Hugo K. Asher to cancel a lease to the north half of north half of section 19, township 29 south, range 29 east. The plaintiff alleges that the lease has been forfeited by reason of the defendant's failure to comply with the terms thereof.

The Southern Pacific Railroad company has commenced a suit against A. M. Bienenfeld, D. Burkhalter and William H. Mason to cancel a lease for the south half of north half of section 35, township 30 south, range 22 east. The plaintiff alleges that the defendants have not carried out the terms of the lease.

## Los Angeles Stocks.

The predictions made in the editorial columns of the OIL REPORTER many months ago to the effect that the oil situation in California was then greatly improved and would continue to improve have been verified to the letter, and no better evidence of their realization could be wanted than that of the improved

and speculators. Golden Argus meets with a ready sale at \$16. Butte Lode is off a few points but may be expected to regain recent losses by the time another dividend is declared. Bisbee West is bid from 2 to 5 points above quotations of a couple of weeks ago. Green Consolidated remains about stationary at practically New York prices closing bids for the week being \$25.50. Of late there is a spasmodic demand for Red Cloud in consequence of which this stock has made material advances. There appears a good demand for copper glance although very little trading has resulted, the last quotations being 40 bid, 47½ asked. Hudson Gold Mining company's shares continue in good demand at 9½ to cents.

Bank stocks furnish the same old story of advancing premiums. There is scarcely a stock on the list that is not commanding a substantial premium above par, notwithstanding which however the offerings are scarce and trading very inactive.

Among the miscellaneous securities little is done on the floor of the exchange, most of the business being confined to the brokers' offices and the curb.

## Oil in the Orient.

C. T. Luffkin, a Standard oil expert, recently talked to a Los Angeles reporter as follows about the market for oil in Japan and the Orient, and the conditions of affairs in Sumatra:

"Sumatra," said Mr. Luffkin, "producers the finest oil in the world, but the difficulties to be met in mining are so great in that field that not more than 5,000 barrels are produced in the whole island.

"It is impossible for white men to work any length of time there. There are no roads and no lumber, the only supply being the native lumber, whipsawed out of the logs on the spot.

"The oil is very high grade paraffine, which comes out of the ground so clear as to be almost transparent, and though the market is there for it, the difficulties encountered by the producer are so great that it is next to impossible to get a guarantee supply to any amount.

"A great market for the California oils is Japan and the Orient and this State can handle it with ease once the producers get down to business. That market does not take a high grade of refined oil, but what they buy the consumers use in an open lamp, not unlike the ordinary oil torch. All over the Orient there are millions of these little lamps and they burn thousands of gallons of a second-grade refined oil, and as all refined oils give off a smoke when burned in an open lamp, it does not do to send a high-grade and expensive oil."

## The Pacific Underwriting and Trust Company.

Home office, Parrott Building, San Francisco, Cal.

If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

COMPANIES INCORPORATED under any State Laws desired. STOCKS and BONDS underwritten. Gold Bonds, interest from two to four per cent, for sale.

Address all communications to the Company at its Home Office.

## OUR NEW YEAR'S EDITION.

The annual New Year's edition of the PACIFIC OIL REPORTER will be published January 3rd.

This edition will be noteworthy among oil publications which have heretofore appeared, not only on account of its beautiful appearance, but more especially on account of its contents.

It will contain a number of special articles from those prominent as scientists, geologists, practical drillers, and successful oil men generally.

It will cover every oil district in the State.

It will be beautifully illustrated with half tone reproductions.

It will contain statistical information that will be exact and reliable.

that grade, says the Chronicle, is absolutely the safest fuel that can be used, and, when confined in properly ventilated tanks, contains no element of danger. The Supervisors are, presumably, interested in securing perfect safety to the public, and they should have no hesitation in complying with the petition of the California Petroleum Miners' Association, which calls for a safe flash test in all oil used as fuel.

## OIL LAND SUITS.

The Southern Pacific Sues to Recover Oil Land.

The Southern Pacific Railroad company has commenced a suit against A. M. Bienenfeld, J. J. Mack, J. M. Keith, D. Burkhalter, and the Limited Oil company of California to cancel a lease for the east half of the northwest quarter of section 7, township 29 south, range 28 east. The plaintiff alleges the defendants have failed to comply with the terms of the lease.

The Southern Pacific Railroad company has commenced a suit

prices for the better-known oil stocks on the Los Angeles Exchange. During the past few weeks there has been a steady advance in the price of nearly all oil securities. This in turn has been reflected not only by the smaller listed companies, but also by some of the unlisted concerns. Among the listed stocks Reed Crude has advanced from 25 cents to 30 and 31 cents. Central, which was selling at 52 cents less than three months ago, is now selling at from 68 to 70 cents, having advanced 10 points in the last two or three weeks. Columbia is also stronger and the same may be said of Fullerton Consolidated. During the week just closed Fullerton oil has climbed up from 8 to 12½ cents. Globe is strong at from 10 to 15 cents. Turner is now held at 15 cents above par. Union Oil and United Petroleum have both shown appreciable advances in the bidding column during the past few days. Westlake, which has been a sort of a sad joke for a long time past, is coming in for its share of the increase which has resulted from the greatly improved condition now obtaining in the oil industry.

Among the unlisted oils trading is not so active, but prices are better than they have been in the past year.

Mining stocks continue to absorb considerable attention from both investors



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

The Mercantile Oil company is negotiating for the purchase of the old Campbell Glass Works property in Berkeley, the intention being to use it for oil refining purposes.

The Pacific States Refinery will soon be incorporated for the purpose of establishing an oil refinery at Fruitvale. J. W. Hastings is acting as organizer of the company. The refinery is to be erected on a plot of land 400 feet square on Fruitvale avenue, near the tidal canal.

### ALASKA.

Southern Alaska may rival the anthracite coal and oil production of Pennsylvania, according to Charles F. Sinclair, who has arrived at Tacoma from Katala bringing samples of oil together with a specimen of anthracite coal, which assays up to 87 percent of pure carbon and 3 percent ash. His oil well is adjacent to that of the Alaska Development company, which is shipping four barrels to Pennsylvania to be refined. Tests made in Alaska show that Katala oil contains a large amount of naphtha and gasoline. It lights readily and burns like kerosene. The Alaska Development company contains 40,000 acres of oil lands, and has capital sufficient to build a refinery at Katala, which it proposes doing if the oil tests sent east are satisfactory. Katala is less than 200 miles east of Valdez. Sinclair says that adjacent veins of anthracite coal are from two to forty feet in thickness. They will be developed with

a fourteen-mile railroad, which the Alaska Development company will build next spring.

### KERN

The Clark Refining company is now

and have organized the Utah-Midway Oil company for development and operation. Other companies are active in the district, and better shipping facilities are promised.

It begins to look like old times in Bakersfield. Last week the hotels were unable to furnish enough rooms, restaurants were turning away hungry patrons, and livery stables were doing a rushing business. Several eastern parties were in the fields looking up opportunities to secure land for immediate investment.

There are unmistakable signs that the Standard is directing longing eyes at the product of the Sunset and Midway fields.

drilling stopped, the tools were still in back shaft carrying oil. This body was found to be 300 feet in thickness. At 300 feet a fine deposit of oil was encountered, and another at 1,150.

The Lion of Sunset has contracted its entire output for the period of six months to the Pacific Refining company, Alameda. The price agreed upon is 23 cents. As the Lion has but one well of unknown capacity, it never having been tested, the contract also permits the Maricopa to furnish an indefinite amount, enough to make up the needs of the refining company. A contract of longer life was refused. The Maricopa's pipeline to the railroad terminus will be completed within a short time, the material being now upon the ground. This line, while owned by the Maricopa, will be jointly used by the Lion, the two companies being closely related.

The Bakersfield Hardware company, H. C. Starns, Blodget and Jewet, Sunset Supply company, Thomas and Frank Cheney, and the Bishop Fishing Tool company, have filed a petition in the Superior court to have the Tiger Oil company, an oil company operating at Kern River, declared an insolvent debtor. The amounts claimed by each are as follows: Bakersfield Hardware company, \$227.12; Jewet & Blodget, \$211.69; Sunset Supply company, \$16.92; Cheney Brothers, \$51.41; Bishop Fishing Tool company, \$35, and H. C. Starns, \$77.50. The petitioners allege that the defendant is and has been insolvent since November 10, when its property was attached by order of the Superior court at San Francisco in the case of M. S. Matthews vs. the Tiger Oil company.

The Associated is returning in several instances to fields of original work, apparently having discarded the idea that it would concentrate its energies upon only one or two of the richest tracts it possesses. Not long since, says the Cal.

## To Newsdealers.

Newsdealers should order in advance a large number of extra copies of the New Year's Edition of the PACIFIC OIL REPORTER.

There will be a big demand.

They will be sold at 10 cents, as usual.

getting out a large quantity of distillate and a fine grade of lamp oil.

Union Oil company of Los Angeles has completed a storage reservoir in the Kern River field, 250 feet square and 27 feet deep, concrete lined, and having a capacity of 20,000 barrels. The Standard company is constructing three reservoirs of equal size in the same field.

Salt Lake capitalists have bought the old Kern Crown Oil company properties at Midway, in the San Joaquin valley,

If the Midway-Pacific does not get a move on very quickly and give producers an earnest that they mean business, before Messrs Blake & Co. realize it, the Standard will have all the product corralled and the railroad scheme will go up in the air.

The well of the Paraffine beyond McKittrick is among the deepest holes in the county, having reached 1,700 feet before work was discontinued, awaiting a decision by the stockholders regarding the company's future policy. When

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



ifornian, all the outlying properties were dismantled of their machinery and left vacant. The Chicago Crude was among the scenes of former activity where the lease was left idle. The Associated has now restored the machinery in part, and is pumping one well and preparing to pump another. The southwest quarter of 30, formerly owned by Green & Whittier, is again the place of some work. Less than two weeks after the lease had been stripped of everything in the way of drilling tools and pumping machinery, an outfit was moved back and a well which was merely put down to the sands for the purpose of making a valid discovery, is now to be sunk deeper and a second well is to be pumped. The Associated also cleaned off the Toltet, but later restored the pumps on one well, but, curiously, wasted the oil upon the ground. This oil ran down a canyon and across a public road, interfering with travel. A threat to set fire to it caused a change in methods, and, since, the oil has been pumped into reservoirs.

#### LOS ANGELES.

Tuesday of last week a quarterly dividend of one and one half percent, payable in January, was declared by the Central Oil company of Whittier. The production of the wells is reported to be about 20,000 barrels a month. The demand for the lighter grades of oil from the Whittier field is active, the Central shipping two hundred carloads this month from Los Nietos.

Details of a transaction of importance to the petroleum industry of southern California have been made public by the Erkekbrecher syndicate of Los Angeles. Over 4,000 acres of land have been acquired by this syndicate some twelve miles west of Santa Monica and just north of the Malibu ranch, owned by F. H. Rindge. The district, which lies a mile or so back from the ocean beach,

although undeveloped, is one of the most promising new fields in the State. Live-oil seepages, oil sands and gas blowouts are to be found, and, according to experts, who have examined the formation along the coast and in the numerous canyons, there are indications that oil will be discovered in abundance. The chief feature of the district, however, is the fact that the best evidences of oil indicate that, if found, the oil will

#### SANTA BARBARA.

The Pinal company began pumping oil last Saturday. The ground for well No. 2 is now being gotten ready, and operations for another well will begin at once. The Brookshire company, which owns the adjoining land, will put down a well very soon.

The new well of the Pinal Oil company is down 1,590 feet, and it has been ascertained that there are 1,000 feet of

is no foundation for the report that E. V. Burke of San Francisco and Wm. M. Beggs of San Jose have any contract with his company looking to the development of the gas well on the Gaffey tract. The company has not abandoned the property, which is regarded as a good investment, and the matter of developing the gas well is now under consideration. The presence of a large body of natural gas has been demonstrated, and work on the well may be resumed at any time.—Gilroy Advocate.

#### DELINQUENT SALE NOTICE.

**LOMA PRIETA PRUNE RANCH COMPANY.**  
Principal place of business, San Francisco. Location of ranch, Monterey County, California. Notice—There is delinquent upon the following described stock, on account of the assessment levied on the 10th day of November, 1902, the several amounts set opposite the names of the respective stockholders,

	SHARES	AMOUNT
Geo. J. Bucknall.....	5	\$25.00
Eliz. C. Culver, Ex'rs.....	10	50.00
C. T. Deane.....	1	5.00
James Jerome.....	2	10.00
Jas. F. Muirhead.....	2	10.00

And in accordance with law, and an order of the Board of Directors made on the 10th day of November, 1902, so many shares of each parcel of such stock as may be necessary will be sold at public auction at the office of Madison & Burke, 30 Montgomery St., San Francisco, California, on Friday, the 6th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.

By order of the Board of Directors,  
FRANK MORTON, Secretary.

Do you want to sell oil well machinery and supplies?

Have you oil land to sell?

Do you want to buy oil land?

Do you want to sell the stocks of a first-class oil company?

If you do then send in your advertisement for the New Year's edition of the PACIFIC OIL REPORTER.

An edition of 25,000 copies will be printed, elegantly illustrated.

Advertisements must be sent by December 29th.

be of light gravity, suitable for refining. The company expects to have a rig on the ground within ten days, and operations will be commenced without delay. The new district is within easy access to all the markets of the State.

#### SAN BENITO.

The Riley company is still at work on the Vallecitas.

The Ladd Oil company is still wrestling with its well near Emmet.

oil in the hole. The well has 8-inch casing. A 600-barrel tank is now being erected, and a survey is being made for a pipe-line to the line of the Pacific Coast Railway near Graciosa and also to the beet sugar factory at Betteravia. Drilling will at once commence on a new well.

#### SANTA CLARA.

Frank Gaffey, secretary of the Watsonville Coast Oil company, says there

## SOME MEN PAY

**\$10,000** for an expert to manage their advertising. There are others who pay

**\$5.00** for an annual subscription to "PRINTERS' INK" and learn what all the advertisers are thinking about. But even these are not the extremes reached.

There are men **\$100,000** who lose over a year by doing neither one.

For sample send 10 cents to PRINTERS' INK, No. 10 Spruce St., New York City.

# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

1. The advance to par of one stock out of four will return in cash **112** percent on the investment.
2. The advance to par of two stocks out of four will return in cash **225** percent on the investment.
3. The advance to par of three stocks out of four will return in cash **337** percent on the investment.
4. The advance to par of all four stocks will return in cash **450** percent on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies.

All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

### INDEX.

Facts Worth Reading.....	Costly Advertising.....
Investigations.....	Why Some Corporations Fail.....
Trust Fund.....	Our Plan.....
Debentures.....	A Word About Our Business.....
Experienced Management.....	A Good Thing to Do.....
A Word of Caution.....	Satisfied Stockholders.....
Our Invariable Rule.....	The Percent of Failures.....
No Man Always Knows.....	A Refinery.....
Loans to Customers.....	Maps and Photographs.....
Our Profits.....	Ten Reasons Why.....
The Big Four.....	The Price of Oil.....
Directors of The Oil Companies.....	Press Notes.....
Reports Upon The Property.....	Faithful Oil.....

Our location is 35 miles from San Francisco with tidewater transportation.

THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION:  
**TRANSPORTATION, MARKET, PRICE.**

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity. Investigate this proposition.

Write us for maps, pictures, literature, etc.

**THE DEBENTURE SURETY COMPANY,**  
(INCORPORATED.)

**230 Bush St., Mills Bldg.,**  
**San Francisco, Calif.**



## Russian Iron Works.

(Continued from page 5.)

The Storing and Distribution of the Petroleum.—The petroleum is transported from Baku to the place of consumption in ships upon the Volga. But since the ship's course is interrupted by ice during half the year the iron works which use liquid fuel almost exclusively are obliged to store the same in large quantities, even as much as 30,000 tons. These supplies are kept in cylindrical metal tanks, with a capacity of about 3,000 to 4,000 each. In addition to these one uses large covered cisterns with a capacity for 16,000 tons.

The petroleum is forced into the ships by means of pumps, and from these is put into the receivers in the same manner. In order to put this from the largest reservoirs into the smaller, which are situated in the different places of consumption, the petroleum is pumped into suitable intermediate reservoirs placed at an adequate height from which it is conducted to the places of consumption by means of pipes.

The question of the employment of petroleum in metallurgical works seems to be completely solved nowadays, as the numerous factories established in the vicinity of the Volga demonstrate by having overcome the difficulties encountered in its employment. Of all the metallurgical industries it is only the foundries which are excluded herefrom, but it is true that certain factories in the 'Ural Mountains' are seeking to employ petroleum in furnaces in order to save wood.

The employment of petroleum as a fuel, instead of oil gas, especially for the purpose of heating the Martin furnaces, is very important, since with this the steel retains no foreign substances, and by employing pure crude material one can be sure of obtaining an equally pure metal. Unfortunately, during the past few years petroleum has experienced an increase in price which has considerably increased the cost of manufacturing. But it is hoped that within a short time an equalization between these and the price of oil will be made, and that notwithstanding some geographical disadvantage of the situation for factories, the employment of this fuel will be general in the Volga region.—Naphtha.

### HIGHER PRICES.

**Increasing Consumption Steadily Raising the Price of Oil.**

The fear that the production of oil would for many years swamp the market, because of the enormous amounts yielded by the Kern River field; had, probably, the largest effect in bringing down the price from a dollar a barrel to ten cents, the rate prevailing not long ago.

It was a bewildering situation, and those who felt that the prodigious quantities capable of being produced would constantly tend to overcome any upward tendency of the market, had good grounds; and, those who professed that they anticipated no such result, alleging their belief that the consumption would more than offset the output, spoke with somewhat of hesitancy. It certainly did appear that the abundance of oil would bring disaster to those who held it.

However, it is becoming evident that the latter were right. The Bakersfield Californian says consumption has increased amazingly, and the future is rich in promise of still greater expansion. The greatest users, the railroads, are not yet nearly equipped for the using of the new fuel, there remaining steam-generating plant after plant still burning coal. The ocean steamers have hardly begun to enter as consumers. New manufacturing establishments are gradually springing up; the elevation of water for irrigating purposes is certain to become one of the most important features of agricultural California; the Standard has not refined a barrel of oil in the immense works it has erected at Point Richmond, and plants for the conversion of oil into other articles of commerce are yet to be brought into being.

From the standpoint of the producer the outlook is excellent for better prices because of the facts enumerated in the foregoing. But there is another reason why the price should never be as low as it has been in the past nor as low again as it is to-day. That reason is simply that the high hopes of those who first operated in the Kern River field and of those who got in when the craze was at its height, have been subject to discount and the discount is in process of being computed.

Startlingly large wells have dropped down into producers once reckoned as second class, those of the second class, have gone down one degree in turn and the natural outcome is being experienced. The invariable history of oil fields is being duplicated here, decrease in capacity following the first years of pumping.

An extreme instance is reported of four wells which are located near the edge of the field, but which were deemed to be good for 100 barrels a day each, have during the past few months yielded an amount much less.

Thus, the consumption is seen to be rapidly overtaking production and production is naturally falling off. The two circumstances taken together form a basis for a prediction of higher prices than we have been accustomed to, ruling indefinitely.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## Pacific States Mining and Investment Company.

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

Gold bonds furnished to facilitate sale of stocks.

Stock issues underwritten on the American or London plan.

Correspondence solicited and careful attention paid to all inquiries.

Money loaned and interest bearing investments furnished.

Send for sample copy of the "Pacific States Investor," an up-to-date financial paper.

Address for all information,  
Pacific States Mining & Investment Co., 324-326 Post St.,  
San Francisco, Cal.

## Fighting the Mosquitoes.

The South Orange (N. J.) Improvement club has met with great success in its work of exterminating the mosquito which is the greatest pest of one of the most charming sections of the Eastern coast. According to the report of the chairman, Spencer Miller, in 1901, by the use of oil

alone the mosquitoes were reduced 50 per cent. 'The present year,' adds Mr. Miller, 'by adding drainage to the oil work we have surely cut down the supply 75 per cent. We can hope another year to reduce the supply 10 per cent more, but that is the best we can do until the surrounding communities take up the fight. The area we have been treating is two miles long and one and three-quarters wide. This year we expended \$1,100 and our results are much more emphatic than last year. Ten thousand dollars spent at once would drain and fill every wet spot in town and the problem would take care of itself.'

IN THE SUPERIOR COURT OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA.

In the matter of the Estate of Mary T. P. Flynn, deceased.

Upon the reading and filing of the verified petition of Hugh Flynn, Administrator of the Estate of Mary T. P. Flynn, deceased: It is hereby ordered that all persons interested in the estate of Mary T. P. Flynn, deceased, be and they are hereby required to be and appear in the Superior Court of the City and County of San Francisco, State of California in the Courtroom of said Court department 9 the proof in the City Hall said City and County on the 10th day of January 1903 at 10 o'clock A. M. of that day to show cause, if any they have why the realty belonging to said estate and hereinafter described should not be mortgaged for the sum of twenty-seven hundred dollars or such lesser amount as to the Court shall seem meet; reference to said petition is hereby made for further particulars.

The realty referred to is described as follows: Commencing at a point on the Southeastly line of Minna street, distant thereon 368 feet 9 inches southwesterly from the southwesterly line of Fourth street, thence southwesterly along said line of Minna street 23 feet 9 inches, thence at right angles southeasterly 80 feet thence at right angles Northeasterly 23 feet 9 inches thence at right angles northwesterly 80 feet to the point of commencement, and being a portion of 100 Vara lot No. 133, in said City and County of San Francisco.

It is further ordered that notice of this order be given by the publication thereof for four successive weeks, at least once a week before the time appointed for said hearing in the PACIFIC OIL REPORTER, a newspaper published in said City and County. Dated December 17th, 1902. J. V. COFFEY, Judge.

# A BONANZA INVESTMENT

## The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4½ CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

## THE AMERICAN INVESTMENT CO.

2 KILBY ST., - - BOSTON, MASS.



## California Stock and Oil Exchange.

Wednesday, December 17, 1902.

Business has been fairly active on the Exchange during the past week.

Peerless more than regained the drop of last week, selling up to \$13.00 on Tuesday, but weakening off slightly to-day. Home continues firm, selling up to \$3.15. Buyer 30. Monte Cristo is weaker, sales having been made as low as \$1.35. Sterling also has lost ground, selling down to \$1.65. Apollo has advanced somewhat, 30 cents being now bid, without calling out much stock. Hanford is higher, selling up to \$93.50. Independence has failed to carry the assessment of 1½ cents delinquent in office last Monday, and has sold at 7 cents, with more offering at that figure.

Sugar stocks, which had quite a tumble the latter part of the week just past, took on a better tone within the last few days, and an improvement is noticeable all along the line, particularly in Hawaiian-Commercial, Makeweli and Paauhau.

Equitable (Pool) Gas sold at \$3.00.

### Only Three Fields.

Years have served to emphasize the fact that there are only three fields in the United States that can be so denominated. These are the California field, the Ohio-Indiana field and the Pennsylvania-Virginia fields. All others are ephemeral. The Texas gushers have gone to sleep, and salt water is their pillow; in Kentucky, Kansas and other middle western sections the experiments still remain clothed in knee breeches, while many well advertised sections are in swaddling clothes, and secretly nourished from the bottle that holds the seductive printer's ink.—Los Angeles Herald.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, December 17:

APOLLO.			
500 at \$	30.....		\$ 150 00
FOUR.			
2,500 at	60.....	1,500	00
1,000 at	59.....		590 00
HANFORD.			
2 at 92	00.....	184	00
3 at 93	00.....	279	00
1 at 93	50.....		93 50
HOME OIL.			
200 at	3 05.....	610	00
200 at	3 15 (B 30).....	630	00
INDEPENDENCE.			
100 at	08.....	8	00
2,700 at	07.....	189	00
1,400 at	06.....	84	00
1,000 at	07 (B 90).....	70	00
200 at	06 (S 15).....	12	00
LION.			
100 at	05.....	5	00
JUNCTION.			
2,500 at	10.....	250	00
KERN.			
50 at	3 95.....	197	50
MONARCH.			
725 at	18.....	130	50
100 at	19.....		19 00
MONTE CRISTO.			
500 at	1 35.....	675	00
100 at	1 37½.....	137	50
OCCIDENTAL OIL.			
1,200 at	13.....	156	00
OIL CITY PETROLEUM.			
2,883 at	16.....	461	28
PEERLESS.			
200 at 11	87½.....	2,375	00
279 at 12	00.....	3,348	00
75 at 12	75.....	956	25
300 at 13	00.....	3,900	00
REED CRUDE.			
208 at	34.....	62	40
STERLING.			
400 at	1 62½.....	650	00
600 at	1 65.....	990	00

300 at	1 67½.....	402	50
100 at	1 67½ (B 10).....	167	50
100 at	1 70.....	170	00
THIRTY-THREE.			
200 at	7 75.....	1,550	00
TWENTY-EIGHT.			
500 at	1 50.....	750	00
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PEERLESS OIL COMPANY—ON DECEMBER 1st declared a dividend No. 9, of ten (10) cents per share, payable January 1, 1903. Books close December 26, 1902. The address of stockholder W. I. Taze is desired. GURDON BRADLEY, Assistant Secretary.

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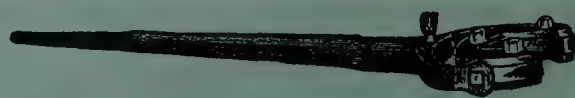


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### Tank Cars in Texas.

If there are any tank car makers who are short of work, it would appear to be a profitable proceeding for them to send representatives down to Texas to take orders. They are yet short of cars there—the railroads, the oil companies and individual operators. The railroads recently agreed to the following arrangement for the distribution of cars for the oil fields:

"Those who wish to use the cars have to apply to the superintendent or person in charge, stating the number of tank cars required. Three days' notice have to be given for ten cars or less, six days for fifty, and ten days for more, and these applications will be taken in order of receipt. The maximum number of cars one person can hire is ten, fifty for every ten days, and 150 per month. A deposit has to be given to the extent of one-fourth of the amount of the freight charges unless otherwise agreed.

The cars have to be used within forty-eight hours after delivery to applicant. Failing this, the deposit is forfeited and the cars reclaimed."

But this arrangement itself indicates that not enough tank cars are available to meet the demands. Troubles therefore continue over failures to fulfill contracts which were made in anticipation of the provision of better shipping facilities by rail than have yet developed.

### They Burn Oil.

Out of the twenty ferry boats and river steamers owned by the Southern Pacific company, sixteen are of the type that consume oil as fuel. This includes all of the craft floated by the company with the exception of the little fruit boats.

The "Amador" and "Bay City," two of the large boats, are not provided with oil-burning facilities, but it is announced that they will soon be converted into oil-burners. The change would have been made long ago, but it was decided to be unwise to substitute the new fuel while the boats were provided with their old-fashioned and worn out boilers. It is the plan to build new boilers for each of these two boats and then they will be converted into oil-burners. The change will be made about the first of next year.

### Big Reservoirs.

The reservoirs being built by the Standard and the Union cover almost as much ground as a city square and are twenty-seven feet in depth. They will hold 200,000 barrels and they look rather big but in Beaumont they have them five times as large. The Texas tanks were excavated when a number of wells were yielding 70,000 barrels a day each, but there is no present necessity for such gigantic storage equipment

there, a liberal estimate of the total output of the field last month being a little more than 50,000 barrels.

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Capital.....\$150,000  
30,000 shares at \$5.  
Location—Fresno county.  
Directors—Chas. L. Fair, president, Blits W. Patton, vice-president, Chas. A. Lee, treasurer, John C. McElroy, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

### STANDARD ROCK OIL COMPANY.

Capital.....\$500,000  
Treasury stock.....\$150,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: K. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Ensign.  
Offices: 475-76 Parrott Building, 833 Market street, San Francisco, Cal.

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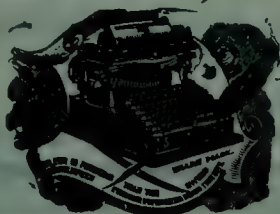
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Vol. 4. No. 8.

SAN FRANCISCO, CAL., DECEMBER 26, 1903.

Price 10 Cents.

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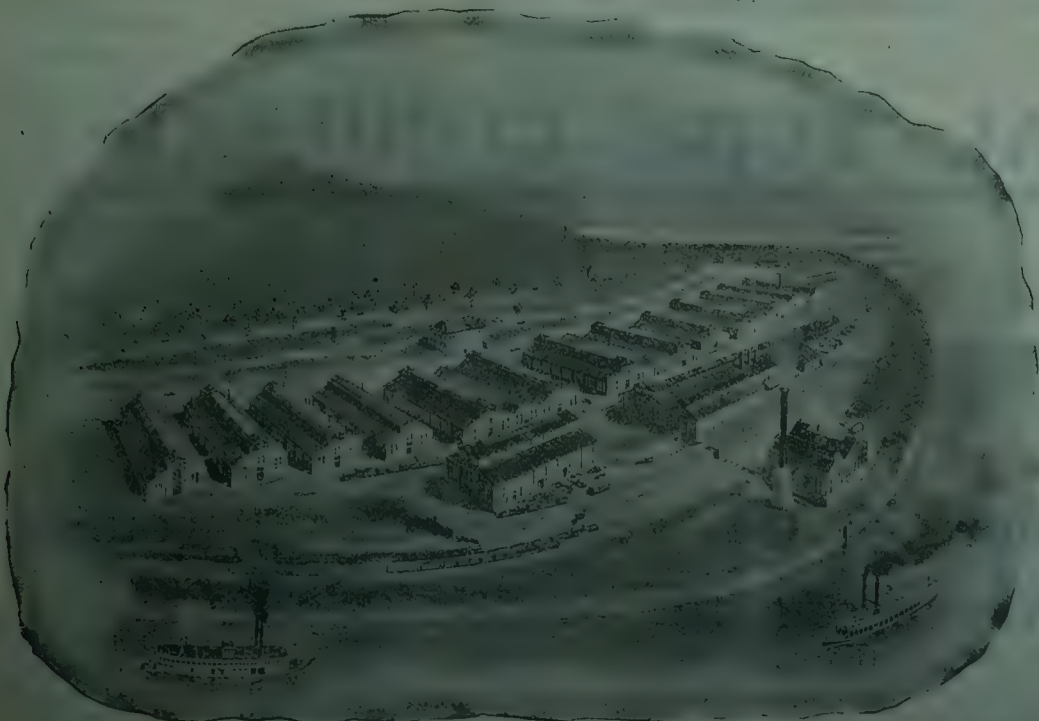
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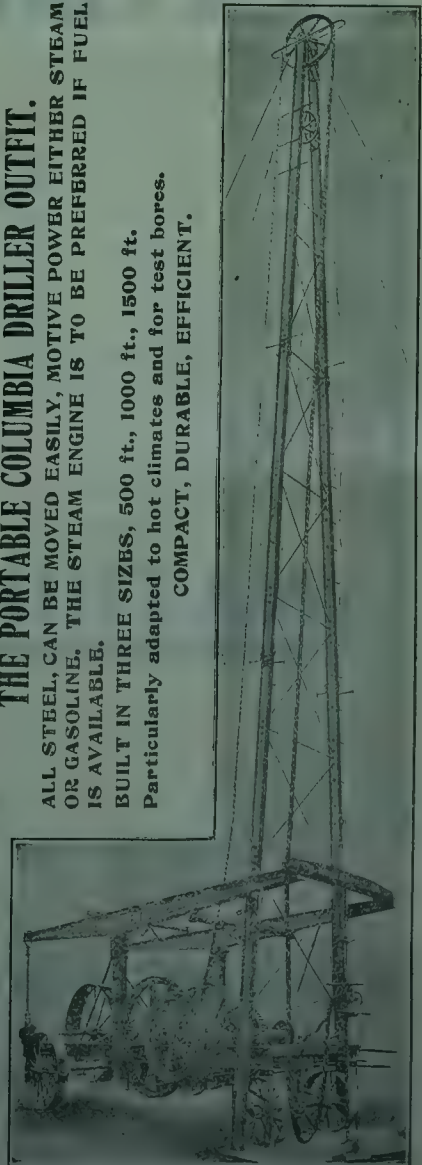
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# PACIFIC OIL REPORTER

VOL. 4, No. 8.

SAN FRANCISCO, CAL., FRIDAY, DECEMBER 26, 1902.

PRICE, TEN CENTS.

## THE COALINGA FIELD.

**Both the Standard and the Union to Commence Big Operations.**

**The Standard Has Entered the Field in Earnest and Is Erecting a Mammoth Storage Plant to Connect With the Big Pipe-Line.**

The oil business is looking up in Fresno county, and those with holdings in the Coalinga field are feeling particularly good. Both the Standard Oil company and Union Oil company, the rival of the Standard, are going into the Coalinga field. The PACIFIC OIL REPORTER stated several weeks ago that the Union company was seeking to make contracts with the Coalinga producers preliminary to building a pipe line from there to the coast, with the terminal at Bay Point, and now there seems to be little doubt that the enterprise will go ahead. It was reported last week that the company had bought a valuable quarter section of land in the Coalinga field, as a depot for its oil storage tanks, and that the company intended to sink a large number of wells on the land as well.

Those who were interested in the deal, said that they were not at liberty to say a word, as the negotiations had not yet been consummated. They expected, however, that in a few days there would not be any occasion for secrecy. The pipe-line will cost about \$600,000 when completed to the coast.

The Standard Oil company is also going into the Coalinga field, in fact has already gone in there. The Standard company sent a force of men in last week to begin work on the foundation for a 36,000-barrel tank. The tank has been received from Ohio and is of steel. It will be located on the land of the California Oil Fields Limited. The tank will be up within the next thirty days, and the company will be ready to receive oil within ninety days. A branch pipe-line will be run from there to connect with the line from Bakersfield.

As stated, the oil business is looking up, and the producers are now receiving 30 cents a barrel for oil at the well. The Standard Oil company has made a standing offer of that amount. The producers are now taking steps to market their oils in an intelligent business way. A preliminary meeting has been held, looking

toward the establishment of a uniform price and a selling agency.

### STANDARD REFINERY.

**Work on the Big Plant Fast Approaching Completion.**

The latest additions to the plant are the big oil pumping station at the shore end of the mole and the factory for refining whale-oil, lard-oil and products of like nature. The latter building is something like 80x160 feet,

three stories high, and has cement lower floors.

The pumping plant is designed to raise oil to a cluster of mammoth tanks which have just been completed on the hill back of the company's offices. These tanks are storage reservoirs and when a ship comes into the harbor to take on a supply of fuel she will take it from these by gravitation.

The work of constructing the main storage tanks still continues. A half dozen of these are complete and as many more are to build under the existing contracts.

The pipe-line is being pushed as rapidly as possible. If not completed by the first of the year it will be in readiness for operations as soon thereafter as money and brawn can bring it about.

### Petroleum Trade of China.

Kerosene oil is an article the import of which is steadily growing, and every few years sees a new producing country sending its oil to compete with the older brands. For a long time American oil enjoyed a monopoly, until in 1891 shipments of Russian oil commenced, and in 1894 Sumatran oil appeared on the scene. Last year Japanese and Borneo oil figured in the customs returns for the first time, and ere long Burma will, it is to be presumed, extend its export to China. Shipments of oil in bulk, by tank steamers, were started in 1897 by the Shell company, and the extension of this method of transportation to almost all the treaty ports of China, coupled with the erection of tanks on shore, wherein to store the oil, has, by facilitating distribution, greatly increased consumption. The lowering of prices, in consequence of keener competition, has also had its effect in stimulating sales. American oil still heads the list in the matter of quantity, and is able to command a price some 4d. or 5 d. a case higher than that of the other oils, but Russian and Sumatran oils are not far behind.

It is somewhat remarkable that the import of kerosene oil into China should exceed that into India, and that in this article, alone of all foreign products, the Chinese should be found better customers than the natives of the latter country. In India Russian oil has occupied and extended the field abandoned by American oil, and the Director General of Statistics is of opinion that this transference means merely a question of relative price.—British Consular Report.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## A GREAT OIL PAPER.

On January 3 will appear the New Year's edition of the PACIFIC OIL REPORTER, which will be read with interest by everyone connected with the oil industry.

The edition will consist of forty-eight pages of matter describing every oil field in the State, and giving full accounts of the leading oil companies.

The statistics of the amount of the oil production of each district, number of producing wells, number of capped wells, and number of wells now being drilled, will be given with absolute correctness.

The edition will be illustrated with over eighty half-tone reproductions of photographs recently taken. A feature of this edition will be a number of special articles written by gentlemen who are thoroughly familiar with the different phases of the oil industry and of the different oil fields.

Among these special articles are:

"Bright Outlook for 1903." Hon. M. H. deYoung.

"California Petroleum as a Chemist's Problem." Prof. Edmond O'Neill, State University.

"Geological Indications of the Presence of Petroleum." A. S. Cooper, Ex-State Mineralogist.

"California's Oil Industry." Dr. C. T. Deane.

"Crude Oil in Smelting." A. Von Der Ropp.

"Testing Fuel Oils." Paul W. Prutzman.

"Kern County Oil Fields." H. G. James.

"Fullerton Oil Fields." Edgar Johnson.

"Whittier Oil Fields." W. A. Smith.

"Los Angeles Oil Fields." Theophile Colville.

"Careaga Field." Julius Ebell.

"Santa Paula Field." J. D. McCloskey.

"Colusa and Glenn Field." W. E. Youle.

"Summerland and Santa Barbara." C. W. Ayers.

One of the features of this edition will be large maps of the Kern River, McKittrick, Sunset, Midway, and Coalinga oil districts. These maps are brought up to date, and show the holdings of every company in the fields, together with the producing wells, drilling wells, tankage and railroads, existing and proposed.

Although an unusually large edition will be published, consisting of 25,000 copies, orders for the paper have come in so rapidly as to indicate the edition will soon be exhausted. Those desiring any large number of copies should send in their orders immediately.

The price of these papers is ten cents each, as usual. The postage on these papers is two cents each.



## LIQUID FUEL TESTS.

### Splendid Comparative Showing Made with the New Fuel in Naval Tests.

No Longer Any Question As to the Superiority of Liquid Fuel Over All Others—Numerous Advantages for Use on Ocean Vessels.

Further tests of the "Hohenstein" boiler have been conducted by the Naval Bureau of Steam Engineering, using oil as fuel instead of coal. These tests were commenced last June and are still under way at Washington. The results of fourteen of these tests appear in the report of the bureau and show conclusively that the effectiveness of the boiler, with oil as fuel, is much greater than where coal was employed. Nevertheless, the naval board is inclined to take a very conservative view of the matter, and hesitates about recommending the general use of fuel oil by the vessels of the United States Navy. There is no longer any question as to the superiority of liquid fuel over all others, and it possesses numerous advantages for use on ocean-going vessels of all kinds. And it would be just as practical for the government to provide fuel oil stations for its cruisers in different parts of the world as coaling stations.

The same boiler used by the bureau in making the coal tests was employed in making the fuel oil tests. The fuel oil burner was one of the Oil City Boiler Works' design, and this burner was used during the seven general tests that were conducted to show, among other things, whether or not it would be possible to secure greater evaporative efficiency from the boiler with oil than was secured with coal. The oil used was from the Beaumont oil field which had been treated to remove the sulphur and some of the more volatile compounds. The bureau declares that the naval problem is a complicated one, and that an extended series of experiments to determine the value of liquid fuel for ships of war should be conducted for at least a year. The bureau, of course, devoted its energies to the mechanical and engineering features of the problem, and gave no consideration to the question of supply.

Of the opportunities possessed by the board for securing trustworthy and reliable data, the report states:

The board considers it but just to acknowledge that, through the generosity of the Oil City Boiler Works, the Bureau of Steam Engineering has had placed at its disposal, without cost for rental, a thoroughly equipped experi-

mental plant. The experimental boiler is of the Hohenstein design and it is the same boiler that was used by the Navy Department in conducting the extended series of tests that were made with coal at various rates of combustion. The value of the data collected during the liquid-fuel experiments can only be appreciated in its fullness by comparing the various tables with those secured during similar tests when coal was used as a combustible. The appropriation of \$20,000 that was made by the Fifty-seventh Congress for determining the value of liquid fuel for naval purposes will therefore be devoted, in great part, to original investigation and research. The board has also had at its disposal an unexpended balance of \$7,088.09 from a former appropriation. In view also of the fact that everybody now performing duty in connection with the experiments is in the naval service, the appropriation available represents only a portion of the actual expense of the experimental work.

The Bureau of Steam Engineering has supplemented the work of the board by calling upon officers in various parts of the world for information upon the subject. The board has visited the steamers J. M. Guffey, Paraguay and City of Everett, and has carefully observed the particular features of each installation. Some of the experts of the fuel oil department of the Standard Oil company have visited the experimental plant and given valuable advice along certain lines. The board has also been placed in possession of the extensive correspondence carried on by the Bureau of Steam Engineering during the past year with experts and manufacturers. It can therefore be expected that if the tests can continue, valuable information will not only be secured, but it will be possible for the navy to render a direct service to all who have a professional or financial interest in the general solution of the liquid-fuel question.

\* \* \*

The test of June 27, 1902, having been a very severe one, and the casing of the boiler having been considerably warped, it was deemed necessary thoroughly to overhaul the plant before commencing the extended series of tests projected. The boiler was

opened, cleaned and thoroughly examined. The baffling bricks were renewed where necessary. As these bricks were of particular shape, some time elapsed before new ones could be secured. The casing was repaired, and an asbestos lining was put underneath the firebricks of the furnace floor. All auxiliary machinery about the experimental plant was overhauled and put in order. The cylindrical and boiler received from the navy yard, New York, was covered with a non-conducting material. The necessary platforms for holding the scales and tanks for weighing the oil and water required for this extra boiler were installed in place. The request was also made that several warrant machinists and the crew of a small naval vessel be detailed for duty in connection with the tests.

The evaporative efficiency secured was very high and the results were eminently satisfactory. The board calls attention to the fact that the experimental boiler was designed for actual navy conditions, and that the limitations prescribed by the department as to height, weight and floor space were of a very severe nature. There was a large amount of radiation from the boiler, and the proportion of heating to grate surface was not as great as in land boilers.

A large amount of valuable information has already been obtained from these tests, which has been carefully tabulated and is published in the report. The report de-

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	Daily Local	Daily Lim'td	Local Daily	Overl'd Daily
Lv. S. Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. Stockton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p	.....	1:25 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

## THE NATIONAL SUPPLY COMPANY

### Oil Well Supplies Drilling and Fishing Tools

### Fitler Cables—best in the world

We carry in stock heavy 7½-in., 5½-in. and 4½-in. Boston Casing, in addition to all the standard sizes and weights. 6 in., 8-in. and 10-in. Boston Drive Pipe always on hand.

## Pacific Coast Headquarters

117 North Main Street

Los Angeles, Cal.

Branches:

Bakersfield and McKittrick, Cal.



clares that the following points have been clearly established.

(a) That oil can be burned in a very uniform manner.

(b) That the evaporative efficiency of nearly every kind of oil per pound of combustible is probably the same. While the crude oil may be rich in hydrocarbons, it also contains sulphur, so that, after refining, the distilled oil has probably the same calorific value as the crude product.

(c) That a marine steam generator can be forced to even as high a degree with oil as with coal.

(d) That up to the present time no ill effects have been shown upon the boiler.

(e) That the firemen are disposed to favor oil, and therefore no impediment will be met in this respect.

(f) That the air requisite for combustion should be heated if possible before entering the furnace.

Such action undoubtedly assists the gassification of the oil product

(g) That the oil should be heated so that it could be atomized more readily.

It is the opinion of the board that the information and data already at hand warrants the immediate installation of oil fuel appliances on two torpedo boats and two torpedo boat destroyers to test the adaptability for use with water tube boilers of bent tube type. The installation should be of different types and effected on boats of similar character so that an earnest and friendly rivalry may be created among the crews to see which could obtain the best results. Few of the bent tube type of boilers now in use on the torpedo boats are adapted to burn fuel oil effectively, and different furnaces will have to be introduced in order to direct the products of combustion among the tubes.

### Oil for Locomotives.

The Minneapolis Times declares that it would not be a matter of surprise if within the space of ten years every railroad train west of the Mississippi should be propelled by fuel furnished by the oil fields of Texas and California. The prediction looks reasonable when it is considered that oil has been used with success for some years by the Southern Pacific and Santa Fe railway companies in southern California. The great obstacle has been the uncertainty as to the supply of oil. With that doubt removed by the development of the Texas fields we may expect petroleum to come into general use in the West as steam-making fuel very rapidly.

### In Canada.

Oil has been struck in the Lineham well, situated in the Fathead

Valley, in Southern Alberta, Canada. During an attempt to extract the tools, which had become lost in the well, the oil overflowed, rising two feet above the surface. The flow continues at intervals of about every two hours. Every vessel about the camp was filled, and many barrels overflowed into the creek and were lost.

### DELINQUENT SALE NOTICE.

LOMA PRIETA PRUNE RANCH COMPANY.

Principal place of business, San Francisco. Location of ranch, Monterey County, California. Notice—There is delinquent upon the following described stock, on account of the assessment levied on the 10th day of November, 1902, the several amounts set opposite the names of the respective stockholders.

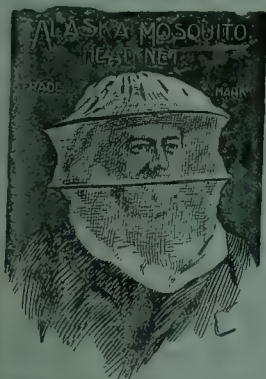
NAME	SHARES	AMOUNT
Geo. J. Bucknall	5	\$25.00
Eliz. C. Culver, Ex'or	10	50.00
C. T. Thompson	1	5.00
James Jerome	2	10.00
Jas. W. Mumhead	2	10.00

And in accordance with law, and an order of the Board of Directors made on the 10th day of November, 1902, so many shares of each parcel of such stock as may be necessary will be sold at public auction at the office of Madison & Burke, 30 Montgomery St., San Francisco, California, on Friday, the 5th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.

By order of the Board of Directors.  
FRANK MORTON, Secretary.

## Alaska Mosquito Head Net

A Perfect Protection Against Insect Pests



Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

Invented for and in general use in mosquito-infested Alaska.

Folds up compactly and goes easily into the pocket.

Made of specially prepared galvanized steel wire and the finest and strongest netting.

Invaluable for hunters, campers and travelers.

Can be worn day or night without inconvenience.

### Made in Two Varieties.

- No. 1. Made of finest netting, sure protection against mosquitos. 50 cents.  
No. 2. Made of very fine, but strong, imported lace, for midges and black flies, \$1.00.

If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

**ALASKA MOSQUITO HEAD NET CO.**

Factory, 1927 Haste St., BERKELEY, CAL.

## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

These maps are Copyrighted by the publishers, Barlow & Hill, and can only be used by them and their authorized agent in San Francisco, THE PACIFIC OIL REPORTER.

### PRICE LIST OF MAPS.

Large Blue Prints, 25x25, single map	\$1.50
Large Blue Prints, 25x25, per doz.	15.00
Small Maps, single map	.25
Small Maps, per doz.	1.50
Small Maps, per 100	10.00
Small Maps, per 1,000	30.00
Small Maps, each additional 100	15.00

Maps in colors, printed to order, showing in red the holdings of any particular company. Folders and Prospectuses printed giving maps and showing location of company's property, with proper descriptive matter.

The above can be obtained ONLY from

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**DRILLING**

**CABLES**

**R. H. HERRON CO.**

509 Mission St.

**Oil Well Supply Co.'s**

**Drilling Tools  
Engines & Supplies  
Pumping Outfits**

**SAN FRANCISCO**

The  
Name  
Determines  
the  
Quality



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

## TERMS

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

FRIDAY..DECEMBER 26, 1902

The importance of the Coalinga oil field is **An Increasingly not generally Important Field** appreciated as it should be. Its possibilities are not understood.

While the field is known chiefly on account of the product of the Home Oil company and its near neighbors its real importance lies in the territory just outside that included in the holdings of these companies. The Home produces an oil valuable on account of its peculiar properties for use in gas making. This oil is supposed to be worth in the neighborhood of 65 and 70 cents at the wells. The area producing this especial quality of oil is very limited.

The most of the territory included in the Coalinga district proper produces a different or rather different grades of oil, for there are several distinct kinds of oil found in this district in an area of less than fifteen miles square.

The California Oil Fields, Limited, an English corporation, has done much to develop the possibilities of this field, and the dozen wells it has drilled has demonstrated the presence of both fuel and refining oil in abundant quantities, so abundant and of such a quality as to warrant the Standard to commence the erection of a great storage plant in the Coalinga field. This means, also, the building a branch pipe-line from this storage plant to the big pipe-line now being finished from Bakersfield to Point Richmond. This branch line will be about twenty miles in length.

In addition to the Standard the Union Oil company has also in view some large operations in the Coalinga field which may ultimately result in a pipe-line to the coast.

The actual construction of the line will depend very largely on the Coalinga operators themselves. If they can produce enough oil to warrant the construction of such a line the Union will build it, and it will pass through the Fresno-San Benito district, where about twenty companies have expended collectively nearly if not quite half a million dollars in the vain attempt to find oil, and not a single company has yet gone down deep enough to test the territory.

Great things are in store for the Coalinga field, which ought to rank as one of the best oil fields in the State.

## Standard Oil Dividends.

During November the directors of the Standard Oil company declared a quarterly dividend of \$10 a share, or \$9,750,000 on the outstanding capital stock of \$79,500,000. This is the fourth quarterly payment, making a dividend of

of the stock, as reported, he has received in dividends during the last three years close to \$46,000,000.

It was explained today that notwithstanding the dividends declared during the current year were below disbursements during 1900 and 1901, the earnings during 1902 surpass all previous years. It was due largely to the great outlay of money in connection with additions, improvements, the acquisition of new territory, etc., that prevented the maintenance of the \$48 a share rate.

For example, the company has under construction a large fleet of vessels for transporting Texas oil. It has spent millions in prospecting in Texas, Tennessee, Kentucky, California and other states. According to an official the Standard Oil company carries no surplus, giving the stockholders full benefits in the way of earnings.

The advance of oil has added

else is burned on the railways of Central Asia, the Caucasus, southern Russia, the Caspian sea and the Volga river. It is used very largely in the industrial works throughout Russia, and it is also beginning to be used by the Mediterranean steamers, and those in the East India and China trade, and its increased use is only limited by an adequate supply at a reasonable price. In this connection it is of special interest to note that, according to consular report, the increased demand has caused the price of fuel oil at Baku to rise from an average of 35½ cents per barrel in 1897 to 60 cents in 1898 and 87½ cents in 1899.

The Russian oil producers have to contend not only with a most disadvantageous location as regards the export trade and an exceedingly high cost of development, but also with a government royalty that in recent years has reached as high as 46 cents per barrel. The government royalty was originally two cents per barrel, but this has been gradually increased until a maximum of the above figures has been reached, the average royalty on recent leases probably being about one-half that amount. As the price of crude oil at the well averages about 75 cents per barrel, it would seem as if the production of oil under all these disadvantages would not be profitable, but such is not the case. Notwithstanding these great disadvantages, the operations are carried on with great profit, and the companies engaged in the business pay large dividends, their stocks sell at high prices and are in great demand. Oil is fast becoming practical for all but a very few of the uses in which coal has hitherto been considered indispensable. It is successful in locomotives, meets all the conditions of steam generation in stationary boilers, has lately carried a steamship across the Pacific, is available in many metallurgical uses, and if an advantage should appear from so doing it can be very well used to the exclusion of coal as a domestic fuel. The change of appliances necessary for the substitution of oil for coal is neither costly nor difficult. Such substitution has already taken place where oil is cheaper than coal; and its great convenience and the economy in handling, together with the absence of ash, will gradually extend its area of consumption into districts where it will successfully meet the competition of coal even with little if any advantage in a lower first cost.

## Oil for Danish Steamers.

The East Asiatic company, of Copenhagen, Denmark, is having oil tanks erected in the free harbor at that port, to provide a stock of liquid fuel not only for its own steamers, but for those of other owners.

## OUR NEW YEAR'S EDITION.

The annual New Year's edition of the PACIFIC OIL REPORTER will be published January 3rd.

This edition will be noteworthy among oil publications which have heretofore appeared, not only on account of its beautiful appearance; but more especially on account of its contents.

It will contain a number of special articles from those prominent as scientists, geologists, practical drillers, and successful oil men generally.

It will cover every oil district in the State.

It will be beautifully illustrated with half tone reproductions.

It will contain statistical information that will be exact and reliable.

\$45 a share, or \$43,875,000 for the year. For the first quarter a dividend of \$20 a share was declared; for the second quarter, \$10 a share; for the third quarter, \$5 a share, and for the last, or present quarter, \$10 a share.

The aggregate disbursements of the Standard Oil company for the current year are less by \$3 a share than in the preceeding year, when \$46,800,800 was paid to shareholders. Forty-eight percent was also paid during 1900.

Within the last three years the Standard Oil company has paid to stockholders in the neighborhood of \$140,000,000. In this connection it may be said that aside from the United States Steel corporation the Standard Oil company disburses more money in dividends than any other corporation in the world.

Little information can be obtained as to the amount of Standard Oil stock held by John D. Rockefeller. If he holds one-third

millions to the earnings of the company, and for this reason the dividend disbursements during 1903, 1904 and 1905 will be in excess of those for 1900, 1901 and 1902. The dividends declared by the Standard Oil company by years since 1892 follow: 1892, 1893, 1894 and 1895, 12 percent; 1896, 31 per cent; 1897, 1898, 30 per cent; 1899, 33 percent; 1900 and 1901, 48 per cent; 1902, 45 percent.

## Petroleum as Fuel.

In a recent lecture before the chamber of commerce of Utica, N. Y., on "Oil as Fuel," colonel W. J. B. Patterson said in part:

"As a steam producer fuel oil has no rival, and the demand for that purpose in Russia is constantly on the increase. According to government report, the demand for fuel oil has increased 900 percent in six years, and if the supply was doubled it would now be absorbed by the home demand. Nothing



## OIL STOCK VALUATION.

Figures indicate the Public's Discrimination.

On what do the investing public base their opinions regarding the true value of oil stocks? Of course, it is reasonable to assume that money is invested upon the present earning capacity of a company and its intrinsic possibilities. A careful buyer would naturally look to those two features when putting his money into an organization and any other reason for purchasing stocks must come under some other head than "comparative conservatism." That reasons other than the two above given enter into stock deals is well illustrated by four companies located in the Kern River field—the Imperial, Thirty-three, West Shore and Peerless. They are equally well situated as far as the knowledge developed by drills goes; they produce the same quality of oil, and they are among the best in the entire district. While the amounts of land possessed by each vary, all are divided into the same number of shares, 100,000. By use of an arbitrary proportion, the respective incomes may be represented:

Imperial .....	28
Thirty-three .....	14
West Shore .....	7
Peerless .....	10

The lands owned bear the following relations:

Imperial .....	42
Thirty-three .....	14
West Shore .....	7
Peerless .....	14

The prices at which the stock of each sells upon the boards are:

Imperial .....	16
Thirty-three .....	8
West Shore .....	3
Peerless .....	13

Many comparisons can be made

the Peerless, has three times as much land, but its stock is worth in the eyes of speculators less than a quarter more.

The Peerless has an income about one-half greater than the West Shore, has twice as much land, and its stock goes for more than four times as much.

The Thirty-three earns a third

## PUMPING PLANT.

How Oil Is Used in Irrigation Near Madera.

A. L. Sayre has just purchased a 54-horse-power crude oil engine for a pumping plant which he will install on his ranch near town. The engine is the largest in use for the purpose in this valley. An 8 inch pump has been put in, which has a capacity of pumping 2,000 gallons of water a minute, and there are six wells, one of which alone has been tested and will furnish enough water for irrigating a large body of land. Mr. Sayre has 480 acres of land, some of which is in vineyard and some in alfalfa, which he intends to irrigate.

The intelligent farmers of this section are rapidly settling the irrigation question by the inauguration of pumping plants, and it will not be a long time before every idle acre of land in this vicinity will be yielding bountiful crops.—Madera Mercury.

A recent dispatch from Chicago says: "Ashek, the Oppressor," the latest book of Mrs. Gertrude Potter Daniels, which has been taken off sale until its attacks on trusts have toned down, depicts in the main the struggle between the Standard Oil company and the independent well owners.

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regarding the actual worth of those stocks and their selling value, such, for instance, as that:

The Imperial is paying twice as much in dividends as the Thirty-three, has three times as much land, yet its shares are selling for only twice as much money.

The Imperial is yielding nearly three times as much money as

more money than the Peerless; it has an equal amount of land, but its shares are valued in the proportion of 8 to 13.—Bakersfield Californian.

William Halbert has sold a 30-acre lease, one mile west of Findlay, Ohio, to the Risser Oil company for \$24,000.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

### 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

### 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



## THE FIRST SHIPMENT.

### A Cargo of Santa Barbara Oil Sent to the Islands.

The first big shipment of oil from the Western Union Oil wells, which are located on the Careaga rancho, in the upper Los Alamos Valley, is now being loaded on one of the big oil ships of the Pacific Oil and Navigation company at Alcatraz landing, near Gaviota. The vessel is under contract to carry 16,000 barrels of the local product to Honolulu, and was ready to sail last Wednesday for the island.

The oil is being pumped into the great oil tanks of the ship through the pipe-line direct from the wells, a distance of forty miles. Considerable oil has been carried in this way from the wells to the refinery at Alcatraz during the past month, but this is the first to be pumped direct to the vessel at the wharf. The oil is 23° gravity, and is as good as any produced in the State for either fuel or refining purposes.

Mr. Slauson, of Los Angeles, and one of the directors of the Western Union company, was seen, and said it was true that the Pacific Oil and Navigation company, which owns the refinery and wharf at Alcatraz, and also the pipe-line from the sea to the wells, had an option on the property, but that it extended for sev-

eral months yet. He stated that he thought the property was as good as sold, as the Navigation company had many large contracts for transporting oil to the Hawaiian and Philippine Islands, and were anxious to have their own field.

The Western Union is rapidly developing its property, regardless of the fact that it may change hands within the next few weeks.

of nine tons each up a 6.3 percent grade at an average speed of from five to six miles an hour, with the same amount of fuel that was previously required for two engines in doing the same work. It is an oil-burner, and has a tank carrying a supply sufficient for a round trip of 102 miles.

J. A. Naugle, general manager of the Sonora Railroad of Mexico says that his road will begin

## Railroad Oil Tanks.

The Southern Pacific company's 15,000-barrel oil tank at Mojave is now about completed, and work on the three 55,000-barrel oil tanks at Olig is being rushed, one being nearly completed. These tanks are in addition to the one built during the past summer.

## Pacific States Mining and Investment Company.

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

Gold bonds furnished to facilitate sale of stocks.

Stock issues underwritten on the American or London plan.

Correspondence solicited and careful attention paid to all inquiries.

Money loaned and interest bearing investments furnished.

Send for sample copy of the "Pacific States Investor," an up-to-date financial paper.

Address for all information, Pacific States Mining & Investment Co., 324-326 Post St., San Francisco, Cal.

## To Newsdealers.

Newsdealers should order in advance a large number of extra copies of the New Year's Edition of the PACIFIC OIL REPORTER.

There will be a big demand.

They will be sold at 10 cents, as usual.

Three new wells are expected to come in at any time.—Santa Barbara Independent.

### Rock Island Taking to Oil.

The Rock Island Railroad company has in operation on its El Paso Division an engine built by the Lima Locomotive and Machine company, of Lima, Ohio, that weighs 280,000 pounds, hauls a train of twenty-seven loaded cars

the use of fuel oil for its engines as soon as the tariff is reduced sufficiently to allow them to import it from the United States at a profit.

The trans-Pacific Oceanic steamship lines, whose western port is Seattle, and which are shortly to begin the use of oil as fuel, will obtain their American side supply from Kern county and their Asiatic supply from the Baku fields, Russia.

# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

1. The advance to par of one stock out of four will return in cash **112** percent on the investment.
2. The advance to par of two stocks out of four will return in cash **225** percent on the investment.
3. The advance to par of three stocks out of four will return in cash **337** percent on the investment.
4. The advance to par of all four stocks will return in cash **450** percent on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies. All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

## INDEX.

Facts Worth Reading.....	Costly Advertising.....
Investigations.....	Why Some Corporations Fail.....
Trust Fund.....	Our Plan.....
Debentures.....	A Word About Our Business.....
Experienced Management.....	A Good Thing to Do.....
A Word of Caution.....	Satisfied Stockholders.....
Our Invariable Rule.....	The Percent of Failures.....
No Man Always Knows.....	A Refinery.....
Loans to Customers.....	Maps and Photographs.....
Our Profits.....	Ten Reasons Why.....
The Big Four.....	The Price of Oil.....
Directors of The Oil Companies.....	Press Notes.....
Reports Upon The Property.....	Railroad Oil.....

Our location is 35 miles from San Francisco with tidewater transportation.

## THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION: TRANSPORTATION, MARKET, PRICE.

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity. Investigate this proposition.

Write us for maps, pictures, literature, etc.

**THE DEBENTURE SURETY COMPANY,**  
(INCORPORATED.)  
230 Bush St., Mills Bldg.,  
San Francisco, Calif.



**BEAUMONT OIL.**

**The Market Price is Steadily Advancing.**

One result of the rapidly increasing Eastern demand for Texas oil combined with the fact of the rapidly lessening productive power of the Beaumont field is that the price of the oil is rapidly advancing as the following, from the Beaumont Enterprise of December 10th, clearly states:

The price of oil continues to climb upward, and while the upward tendency is not characterized by spasms it is going up nevertheless. The prices that prevailed yesterday, and which are in force to-day, are as follows:

Oil in tanks in small quantities.....	42c.
Oil f. o. b. Gladys or Beaumont, in carload lots.....	55c.
Oil in tanks in 50,000 or 100,000 barrel lots.....	50 to 25 c.

The above quotations are absolutely correct, and if any oil holder or producer has disposed of any quantity of oil for less than the figures quoted during this or the latter part of the last week, he has simply sold the commodity for less than the market price. In evidence of this fact the Enterprise is enabled to quote actual sales made by reliable parties yesterday. Mr. G. B. Mackey, formerly cashier for the J. M. Guffey company, disposed of twenty cars yesterday at 55 cents per barrel, and closed a contract for the delivery of 200,000 barrels at 60 cents per barrel. There is nothing particularly strange about these prices; oil is advancing steadily all over the country, and it is reasonably evident that the price of the Beaumont product is going to go even higher. The contract Mr. Mackey has for the delivery of 200,000 barrels at 60 cents is f. o. b. Port Arthur.

**Drilling In England.**

American enterprise has taken England by storm. It has commenced the vigorous development of natural gas fields around London, which are said to be larger but deeper than those known to exist in the United States. These fields were first tapped six years ago at Hatfield, in Sussex, when railroad men were boring deep for water. When they were down 312 feet the smell of gas was powerful. They disregarded it and thought it was foul air. Even later, when a light was applied to the boring, and brought a huge burst of flame, nothing practical was done beyond illuminating the adjoining depot.

But a year ago some Americans began exploration in real earnest. They find that coal oil in abundance underlies the sandstone formation which covers a great part of England. They formed a powerful company, which is carrying on its operations night and day, and several wells are in full flow. The gas supplies both light and

power. In the deepest hole the pressure is 200 feet to the square inch, which is more than the working pressure of most locomotives in this country. This pressure is found to rise steadily as the holes pierce deeper into the beds of porous sandstone that cover the gas-bearing strata beneath. The Americans took their own time to acquire all available property, and paid a high price for most of it.—Exchange.

**Trouble In Beaumont.**

The following from the Beaumont Enterprise would indicate trouble among the operators in that oil camp:

A crowd of oil men got together in the lobby of the Crosby hotel last night, and each agreed that a petition should be circulated asking each and every oil producer to sign an agreement to come together in a public meeting some time real soon for the purpose of engaging in "heart-to-heart talks" for the good of themselves. The producers who are agitating this move think probably they understand certain phases of the situation that some of their fellow-producers do not understand, and vice versa, and have come to the conclusion that the best way to interchange ideas is to come together in a meeting.

**Oil and Gas Patents.**

The following recently granted patents relating to oil and gas are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, patent attorney, Park building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Centering and guiding device for deep-boring apparatus with eccentric boring tool, John Wyczyski, Truskarviec, Austria; No. 712,887.

Bit, E. A. Cowles, Franklin, Pa.; No. 713,067.

Rod and tube elevating and pumping apparatus, W. J. Wright, Pittsburg; No. 713,269.

Oil burner, W. E. Chandler, Elcampo, Texas; No. 713,397.

Crude oil burner, L. S. Flatau, St. Louis, Mo.; No. 713,419.

Process of refining asphaltic mineral oils, J. C. Mims, New Orleans, La.; No. 713,475.

Well tube lifter, Joseph Neumeier, La Crosse, Wis.; No. 713,485.

Hydrocarbon burner, F. A. Reynolds, Lewiston, Me., assignor to Standard Power company, of New York; No. 713,494.

Hydrocarbon burner, H. R. Searing, Bayonne, N. J.; No. 713,697.

Protector for pumping rods, T. R. Vincent, Berkeley, Cal.; assignor to W. G. Leale, Manufacturing and Developing company, San Francisco; No. 713,738.

Rope or cable clamp, J. B. Braden, Salem, W. Va.; No. 713,738.

Hydrocarbon burner, J. H. Morrissey, San Francisco; No. 713,902.

Well drilling machine, R. B. Moore, Yamelton, Texas; No. 714,111.

Device for preventing gas or oil wells from gushing, G. R. Cheesman, Auburn, N. Y.; No. 714,146.

Oil burner, L. A. Pfeiffer and L. D. Staples, San Francisco; No. 714,394.

Crude oil burner, M. A. Pesler, Visalia, Cal.; No. 714,467.

Casing head, P. J. Moser, Kaue, Pa.; No. 714,508.

Hydrocarbon burner, Walter Macleod, Newport, Ky.; No. 714,722.

Well drill, P. H. Boothe and F. L. Woods, Collins, Miss.; No. 714,772.

Fishing tool, H. A. Worthington, Los Angeles, Cal.; No. 714,989.

Crude Oil burner, T. O. Bateman and H. T. Wilson, Fort Worth, Tex.; No. 714,995.

Steam explosive engine, C. A. Braden, Butler, Pa., assignor to the Braden Gas Engine company, same place; No. 715,008.

Oil burner, Jas. Fisher, New Orleans, La.; No. 715,044.

Process of shutting off water in drilled wells, Wm. Plotts, Whittier, Cal.; No. 715,141.

Oil burner, G. F. Robertson, Beaumont, Texas; No. 715,151.

Oil burner, F. N. Wilcox, New Orleans, La.; No. 715,227.

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The Union Oil company, of Canada, according to a statement of its secretary, now has 90 wells in operation in Ontario, between Petrolia and Sarnia.

IN THE SUPERIOR COURT OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA.

In the matter of the Estate of Mary T. Flynn, deceased.

Upon the reading and filing of the verified petition of Hugh Flynn Administrator of the Estate of Mary T. Flynn, deceased. It is hereby ordered that all persons interested in the estate of Mary T. Flynn, deceased, be and they are hereby required to be and appear in the Superior Court of the City and County of San Francisco, State of California in the Courtroom of said Court department 9 thereof in the City Hall of said City and County on the 19th day of January 1903 at 10 o'clock A. M. of that day to show cause, if any they have why the realty belonging to said estate and hereinafter described should not be mortgaged for the sum of twenty-seven hundred dollars or such lesser amount as to the Court shall seem meet; reference to said petition is hereby made for further particulars.

The realty referred to is described as follows: Commencing at a point on the Southeastly line of Minna street, distant thereon 368 feet 9 inches southwesterly from the southwesterly line of Fourth street, thence southwesterly along said line of Minna street 23 feet 9 inches, thence at right angles southeasterly 80 feet thence at right angles Northeasterly 23 feet 9 inches thence at right angles northwesterly 80 feet to the point of commencement, and being a portion of 100 Vara lot No. 133, in said City and County of San Francisco.

It is further ordered that notice of this order be given by the publication thereof for four successive weeks, at least once a week before the time appointed for said hearing in the PACIFIC OIL REPORTER, a newspaper published in said City and County. J. V. COFFEY, Judge. Dated December 17th, 1902.

# A BONANZA INVESTMENT

## The Columbian Oil, Asphalt and Refining Company,

of California, has the largest and most valuable deposit of LIQUID ASPHALT yet discovered in this country; has its own REFINERY of over 400 barrels daily capacity, which was started up on November 1st, and as the asphalt produced contains several by-products of great commercial value, the company should be able to earn and pay very heavy dividends, in fact, so large as to warrant the stock advancing to par in the next few weeks, and probably to several hundred per cent premium by the first of the new year. The stock is now selling at only 4 1/2 CENTS PER SHARE (\$45 per thousand) which is just 45 cents on the dollar, and the FIRST QUARTERLY DIVIDEND HAS BEEN PROMISED FOR JANUARY 1ST. Invest now and have your stock share in the first dividend. Write or call at once for reports, photographs of the refinery and the fullest information.

## THE AMERICAN INVESTMENT CO.

2 KILBY ST., = = BOSTON, MASS.



**Another Tank Ship.**

The latest addition to the Pure Oil Company's growing fleet is the tank steamship Pennoil, launched November 18, 1902, at Greenock, Scotland. The fleet now includes two ocean-going tank steamers, the Pureoil and Pennoil; two ocean-going barges, the Marcus Hook and J. W. Lee; three 8,000 barrel barges on the Rhine; one 10,000 barrel ocean lighter and three barges on the Elbe. Other vessels for the fleet are in process of construction. The Pure Oil company is representative of the alliance of independent interests embraced in the Producers' Oil company, limited, the Producers' and Refiners Oil company, limited, and the United States Pipe Line company, together with oil men who have come in through direct investment in the stock of the Pure Oil company instead of transition through the other companies named. When the Pure Oil company was started it met with the usual chief handicap encountered in independent movements.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, December 24:

CLAIRMONT.			
240 at	15.....	36 00	
FOUR.			
100 at	60..	60 00	
300 at	59.....	177 00	
HANFORD.			
1 at 94	50.....	94 50	
1 at 95	00.....	95 00	
HOME OIL.			
700 at	3 10.....	2,170 60	
100 at	3 05.....	305 00	
100 at	3 15.....	315 00	
IMPERIAL.			
100 at	16 00.....	1,600 00	
INDEPENDENCE.			
1,000 at	07 (B 30).....	70 00	
1,000 at	07 (B 90).....	70 00	
1,000 at	06 (S 90).....	60 00	
1,000 at	06.....	60 00	
JUNCTION.			
800 at	09.....	72 00	
300 at	10.....	30 00	
KERN.			
50 at	3 90.....	195 00	
150 at	4 00.....	600 00	
KERN RIVER OIL.			
10 at	8 25.....	82 50	
LION.			
500 at	07.....	35 00	
250 at	06.....	15 00	
MONARCH.			
700 at	19.....	133 00	
MONTE CRISTO.			
100 at	1 32½.....	132 50	
OCCIDENTAL OIL.			
1,100 at	13.....	143 00	
PEERLESS.			
25 at	12½.....	312 50	
SOVEREIGN.			
600 at	26.....	156 00	
STERLING.			
1,100 at	1 65.....	1,815 00	
300 at	1 67½ (B 30).....	502 50	
THIRTY-THREE.			
30 at	7 87½.....	336 25	
100 at	7 75.....	775 00	
WOLVERINE.			
200 at	50.....	100 00	
11,957 Shares		Amount \$10,547 75	

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Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
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**Joseph B. Toplitz**

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Newport, R. I.

**DIVIDEND NOTICE.**

PEERLESS OIL COMPANY—ON DECEMBER 1st declared a dividend No. 9, of ten (10) cents per share, payable January 1, 1903. Books close December 26, 1902. The address of stockholder W. I. Taze is desired. GURDON BRADLEY, Assistant Secretary.

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**California Gold Mining Stocks:**

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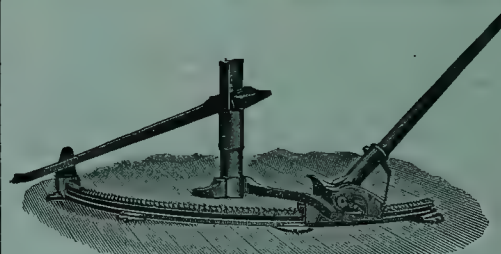
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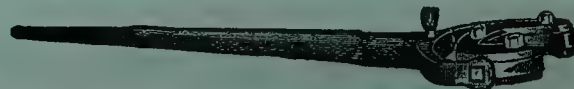


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**OIL FOR MACADAM.**

**Stockton to Try the Plan of Oil-  
ing Macadamized Streets.**

Mayor Catts returned last night from San Jose, where he attended the annual convention of California Municipalities, says the Stockton Mail:

"Was anything brought up that is of especial interest to Stockton?" was the question asked of him to-day.

"Yes, there were two matters," he replied. "The first was the possibility of doing away with the sprinkling of macadamized streets. The plan advocated is to oil them. Two cities are now trying the experiment. We will wait until they get results, and then go ahead if the experiments prove satisfactory. We have a good many miles of macadamized streets, and the cost of sprinkling them is great. The stone pavement soon heats up and the water evaporates. Besides that, the mud forming on the surface of the streets from sprinkling tends to loosen the pavement, wagon wheels picking it up together with bits of rock. If the street is left dry the pavement soon wears out. Oil seems to offer a solution to all the trouble and expense.

**OILED ROADS A SUCCESS**

**Little Difference Between an Asphalt and an Oiled Road.**

When the oiling of roads was in the experimental stage, a contemporary expressed a curiosity to know what kind of a highway an oiled road would make when it became a muddy road. The rains upon the oiled streets of Bakersfield where they have been properly crowned demonstrate that they do not become muddy. After one or two years of oiling, the water given an opportunity to run off, there is practically little difference between a well oiled road and an asphaltum street after a winter's storm.—Bakersfield Californian.

**Making Oil Into Gas.**

Two new gas plants have been established lately for the manufacture of gas solely from crude petroleum. One of these plants is at Fresno and the other at Oakland, both owned and operated by the same company, which has a three years' contract to supply the Oakland Gas Light and Heat company with gas at from ten cents to twelve and a half cents per cubic foot cheaper than it has been made under the old process. The heavy fuel oil is pumped from a tank directly into generators, and the product is a superior quality of gas. A test made of that supplied to the Oakland company recently showed twenty-seven candle power. A gas testing eighteen to twenty-two candle power was hitherto accepted as up to the highest standard required. The

Oakland company recently showed that they were perfectly satisfied with the new gas and have formally accepted the service.

**CYGNET PETROLEUM CO**

Capital.....\$150,000  
30,000 shares at \$5.  
Location—Fresno county.  
Directors—Chas. I. Fair, president, Blita W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McKittrick, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

**STANDARD ROCK OIL COMPANY.**

Capital.....\$500,000  
Treasury stock.....\$150,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Henshaw.  
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ESTABLISHED 1892

The accompanying half-tone group represents with absolute fidelity the interior arrangements of the offices of the Pacific States Mining and Investment company of 326 Post St., San Francisco. This company has followed the practice observable in most successful business undertakings, namely—beginning in a small way, and paying as it goes, making improvements and enlargements only when demanded by steady increase of legitimate business.

The offices of the company are centrally located, fronting on Union Square, which latter is being adorned by the Dewey monument, and around which large numbers of new buildings, ranging from four to twelve stories, are rapidly going up to replace pioneer wooden structures. The Post Street Improvement Club is working regularly for the beautification and progress of the identical part of the thoroughfare on which the premises of the Pacific States Mining and Investment company are located.

In connection with the enterprise there is published a first-class monthly financial newspaper, devoting much of its space to mining, oil, and industrial enterprises all along the Pacific coast from Alaska to the southern boundary line of Central America. The editorial articles show a wide range of knowledge of affairs in Mexico, British Columbia, the Central American republics, and the States and territories of the United States west of the Rocky Mountains.

It will be seen from the illustration that the undertaking requires quite a considerable staff of employees, and that every care is given to the comfort and convenience of visitors and employees alike. The entrance gallery is in bird's eye mated

and silver. All the rooms have Axminster carpets, and are sunny, well lighted and warmed in winter, while in summer they are kept ventilated and cool. There are up-to-date lavatories and toilet accessories of every kind, not shown in the illustration, located on the same floor. The first of the rooms actually shown is the chief business office, with stenographers seated at their desks. The adjoining quarters are the library and mineralogical collection room and the mailing room of the "Pacific States Investor." Further to the rear of the entrance gallery is the special reception room, furnished with great elegance and provided with every facility for the dispatch of business at meetings of the board of directors connected with the various enterprises connected with the Pacific States Mining and Investment company. Adjoining this room is the laboratory and model room. In the view of this room is shown cautting apparatus specially designed and made by a regular employe of the company for the new cannery of the Abalone Packing company. The steamer "Romola," recently purchased for this concern, was also completely refitted, even to new iron plates, by employees of the Pacific States Mining and Investment company.

The private office of the general manager, who is dictating to a stenographer, is shown, and likewise the mailing room of the "Investor." The paper goes to all parts of the world, and the circulation amounts to many thousand of copies. The daily official mail amounts to several hundred letters in English, German, French, Spanish, Italian, Japanese and Chinese. There is an underwriting department associated with the enterprise, which is now in the twelfth year of its existence.



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# PACIFIC OIL REPORTER

VOL. 4. No. 9.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 3, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed by the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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THREE MONTHS ..... \$1.00  
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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY, JANUARY 3, 1903

The figures presented in the accompanying table will well

repay study. Last year there were in the different oil districts of California 2,152 wells which produced 13,692,514 barrels of crude petroleum.

The year before the 2,040 producing wells in California produced 8,742,500 barrels.

The increase in the number of producing wells of 1902 over 1901 is 112, while the increase in the amount of production is 4,950,014 barrels.

This increase of production is more than the entire State of California produced in 1900; in that year the total output of the State was only 4,329,950 barrels.

Of the different districts it will be seen that the Kern River was the largest producer, nearly 9,000,000 barrels coming from that district alone. To be more exact, the Kern River district in 1902 produced to within 100,000 barrels of the entire production of the State in 1901.

Another deduction can be drawn from the table as follows:

The product of the Kern River field was obtained from 322 wells. In this same field, however, 245 wells capable of producing were not in use on account of lack of market and transportation facilities. It is right to suppose that the average production of these unused wells was equal to the average production of those in use. Estimating the average production of the wells in use to

be 26,851 barrels per year, then the 245 wells shut in could have produced an additional amount of 6,576,495 barrels, making the total

Midway and McKittrick districts the total possible output of the different fields in Kern county would exceed 20,000,000 barrels

eration the capabilities of every other oil field in the state, not one of which is producing a fractional part of what it is able to produce, as is well shown in the articles which follow.

The capabilities of the state in the way of production are enormous, and those who look merely upon this side of the question may well ask, "What shall be done with all this oil?" To offset this must be taken into consideration the fact that the consumption of oil in California is really just begun. In 1900 we consumed 4,329,950 barrels; in 1901 we increased this consumption to 8,742,500 barrels; in 1902 we have increased this consumption to 13,692,514 barrels. The year 1903 will see the consumption of oil in California exceed 20,000,000 barrels, in fact it may approach nearly 25,000,000 barrels.

Few people realize how the consumption of oil is increasing. Take the railroads for example.

The Southern Pacific Railroad company has now on its different divisions 504 locomotives burning oil. These locomotives consume 600 barrels per month each, the total consumption for the engines of the Southern Pacific alone at the present time amounting to 3,628,800 barrels per year, equal to almost the entire output of the state two years ago.

This does not include by any means the entire number of engines operated by the Southern Pacific; in fact it is hardly one-half of those now running on the different divisions.

Before the close of 1903, practically all engines owned by the Southern Pacific Railroad company will be changed from coal burners to oil burners and this company alone will be consuming nearly 6,000,000 barrels of crude petroleum yearly.

The Santa Fe has 280 engines burning oil between San Francisco and Winslow, Arizona. These include most of its passenger engines, and it is changing its freight engines as rapidly as possible. These engines of the Santa Fe will burn an additional 2,000,000 barrels of oil in 1903.

It will be seen therefore that the engines of the Southern Pacific and the Santa Fe roads, before the close of 1903 will have consumed during the year close on to 8,000,000 barrels, equal to the entire production of the State in 1901.

In 1901, there was hardly a steamer burning fuel oil on the Pacific coast; there are now in this State, 111 steamers with a total tonnage of 88,981, burning oil and consuming it at a rate

### California's Oil Record In 1902.

The following statement of the oil production of California during the past year, and of the existing conditions in the producing fields, is absolutely reliable, and can be depended upon as correct. That the figures given are correct can be judged from the fact that in January of last year this paper made a similar statement for the year 1901, which statement was practically identical with that made by the United States Geological Survey and the State Mining Bureau, both of which proved the correctness of the statement published in the PACIFIC OIL REPORTER nearly nine months before.

The following figures contain neither exaggeration or guesswork, and are of great value as a basis upon which to form intelligent judgments:

Producing Fields.	Producing Wells.	Production Bbls.
Coalinga .....	19 .....	504,545
Santa Maria .....	5 .....	100,636
Midway .....	2 .....	50,180
Sunset .....	24 .....	142,630
McKittrick .....	37 .....	597,600
Kern River .....	322 .....	8,646,109
Summerland .....	228 .....	94,900
Newhall, Santa Paula } and Ventura. ....	370 .....	609,000
Los Angeles .....	926 .....	1,074,655
Whittier .....	76 .....	543,450
Fullerton & Brea Canyon	98 .....	1,201,909
Puente .....	45 .....	126,900

Total .....

Average daily production for the year ..

Owing to lack of market and transportation facilities there are now shut in, and not being pumped, the following number of wells in the districts named:

Santa Paula .....	13	Sunset .....	55
Coalinga .....	55	Midway .....	16
Kern River .....	245		
McKittrick .....	40	Total of capped wells	424

Wells are now being drilled in producing fields as follows:

Newhall, Santa Paula and Ventura .....	23	Kern River .....	28
Puente .....	3	McKittrick .....	8
Los Angeles .....	11	Sunset .....	10
Summerland .....	2	Santa Maria .....	3
Coalinga .....	5	Midway .....	11
Whittier .....	12		
Fullerton & Brea Can. ....	22	Total .....	138

Stocks of oil in tankage and reservoirs, 3,850,000 barrels.

The production of the State varies in gravity from 9° Beaume, the lowest gravity in the Sunset field, to 38° B., the highest gravity in the Newhall field.

The depth of producing wells ranges from 200 feet at Summerland to 2,500 feet at Fullerton.

possible output of the Kern River field, 15,222,604 barrels.

If we should add the wells shut in and being drilled in the Sunset-

annually.

Besides the enormous capabilities of the Kern county fields should also be taken into consid-



which necessitates the pumping of hundreds of wells to their full capacity.

It is not necessary to mention the hundreds of manufacturing interests that have begun to use oil for fuel in the last two years, nor to mention the industries and establishments other than manufacturing which are also large consumers of liquid fuel. The list of consumers published elsewhere tells the story.

In estimating the consumption of oil in 1903 the capacity of the refineries should not be forgotten. At the beginning of 1902 only a dozen refineries were in operation. To-day there are thirty-two having together a total still capacity of 31,575 barrels, or a yearly consumption of over 5,000,000 barrels. This amount does not include what the big refinery at Point Richmond will require when it is ready to run at its full capacity, in April.

In the making of gas, crude oil has been found to have no equal. It is superseding all other fuels even in the mines where wood and coal are supposed to be cheap and abundant.

California has entered upon a new era of prosperity to which many causes contribute. Of these, however, none is more potent than that which has not only supplied a cheap and safe fuel, but which has given employment to thousands of laborers, has put into active operation millions of dollars' worth of machinery, and has given to desert land, before worthless, a value of thousands of dollars per acre.

At the beginning of 1902 the situation of the oil industry was unsatisfactory. Production was far greater than the consumption, and on this account as well as on account of poor management and foolish competition the price of Kern oil was in the neighborhood of 10 cents at the wells. Today oil is worth at least 20 cents at the wells, and much of it is selling for more, with the prospect of at least 50-cent oil before the close of 1903.

The oil industry of California is yet in its infancy. We little thought four years ago that it would ever produce or be able to consume 8,000,000 barrels of oil a year. Last year it consumed nearly 14,000,000 barrels; this year it will consume at least 20,000,000 barrels; next year there is every reason to believe that with the new usages to which oil is being put the total consumption of crude petroleum in this state will be not less than 40,000,000 barrels.

The latest in regard to the oil situation is the reported intention of the Standard Oil company to purchase or obtain control of a large portion of the producing territory in the Kern River and McKittrick fields, including the properties of the Associated Oil

companies, the Imperial, Thirty-Three and some others.

While these reports cannot be authenticated it is a well-known fact that if such a deal could be consummated the result would

poor management and the exercise of an unwise business policy has not only placed itself in a most unsatisfactory financial condition, but has lost to the oil producers millions of dollars that

## BRIGHT OUTLOOK FOR 1903.

The outlook for the oil producer in 1903 is distinctly encouraging. During the year drawing to its close we have witnessed many advances towards that more general consumption of liquid fuel which is necessary to insure the producer a fair return for the commodity which is so rapidly displacing coal in this State. A careful estimate shows that, despite an expanding manufacturing industry in 1902, the imports of coal were cut nearly in half. The result of this was to keep in the State about \$2,200,000 which would have been expended abroad for fuel. This excellent showing, I am confident, will be greatly surpassed in the near future by a largely increased use in many directions. The railroads are becoming larger takers of our oil; our gas companies are using more and more every day; our



HON. M. H. DE YOUNG.  
President of the California Petroleum Miners' Association.

dusty roads will absorb an immense quantity; it will not be long before every steamer sailing out of a Pacific coast port will be using liquid fuel, and there is a good prospect of its successful employment in the reduction of ores. It is used quite freely at our mines to produce energy. This expanding demand, due to the multiplication of so many classes of consumers, cannot help but result in a greatly enlarged demand, which will enable the producer to earn a fair reward. I should not be surprised if in the very near future, instead of capping wells, all the good properties will be pumping day and night, and selling their products at remunerative prices. The growing consumption will easily absorb over 15,000,000 barrels in 1903, a quantity I feel assured the wells of the State will produce, and for which a good market will be found during the year. So on the whole, I may say that the outlook is for a prosperous year.

M. H. DE YOUNG.

very greatly help the oil situation and the industry generally, by destroying foolish competition and raising the price of oil. It is generally conceded that the Associated Oil company through its

might have been received had not the Associated cut the price to 10 cents a barrel. If the Associated was out of the way the oil industry would flourish, and, though the Standard is generally

regarded the enemy of the producer the latter certainly could not be injured more by the Standard than he was by the Associated. The policy of the Standard has always been to buy oil rather than produce it, and if the company makes an exception to this rule by purchasing the Associated holdings it will be a big surprise, especially as the Associated cannot show clear title to its holdings. As the Associated is in a bad tangle, cannot sell its bonds, has to face a mob of dissatisfied stockholders, and is under contract to sell millions of barrels of oil at cost or less than cost it will not be surprising to hear that the company has made some deal with the Standard by which the latter practically controls it. The sooner this happens the better for all concerned, and the sooner will oil reach the 50 cent mark at the wells. This is only a fair price, making a rate of \$1 a barrel delivered in San Francisco. At this rate oil as fuel will be 40 percent cheaper than coal beside giving less trouble and dirt.

### THE OIL PIPE-LINE.

All the Stations Will Be Completed by January 15.

E. R. Smith, the contractor, who is building the stations and auxiliary buildings along the Standard Oil company's pipe-line from Bakersfield to Point Richmond, states that the line will be completed and oil pumped through it by the 1st of March. "At that time," he said, "we will have laid 3,000,000 brick." The line is now laid, with the exception of a stretch of forty miles between Tracy and Bay Point.

Ten of the stations have been completed with the exception of setting the boilers. Stations are now under construction at McCabe Siding and at Vernalis, twelve miles this side of Tracy. Each station consists of two brick buildings, costing \$4,000 each, being a boiler and a pump house, and two cottages costing \$2,000 each for the employees. At each station there will be a 600 horsepower engine. All the buildings will be completed by January 15.

### Enterprising Concern.

Attention is called to the advertisement on the second page of this issue of the Pacific States Mining and Investment company, at the head of which is Mr. W. E. von Johannsen who is not only an exceptionally active man of affairs but is also the acting Consul of Costa Rica.

The company is very largely interested in the different mining, oil and other enterprises in California and also in more distant parts, and handles many propositions which offer first-class inducements for the investment of capital.



## CHEMICAL PROBLEMS.

### Questions in Oil that Must Be Worked Out by the Chemist.

#### California Petroleum Presents an Exceedingly Fruitful Field for the Investigations of the Chemist on Account of its Peculiar Properties.

By Prof. Edmond O'Neill.

All chemical processes are at first wasteful. It takes years of experience to ascertain the leaks and to stop them. The history of any process is a history of saving the waste and making use of the by-product—of making use of the useless.

Innumerable examples of this law might be quoted. Take carbonate of soda. It was first made by burning seaweeds and lixiviating the ashes. Then Le Blanc thought it would be more economical to take the salt directly and convert it into carbonate without waiting for the slow absorptive action of plants. He worked out a process,

waste, but now all the sulphuric and much of the nitric acid is saved. Example after example could be given, but these will suffice.

Yet there is a great field for improvement and discovery. A few instances among many might be mentioned. The great smelting furnaces of Shasta and elsewhere are pouring thousands of tons of sulphuric acid into the atmosphere, instead of converting it into sulphuric acid, and not only is it wasted, but it produces destruction, killing the vegetation and polluting the streams for miles around.

The immense accumulation of sawdust from the great saw-mills are

small amount of lubricants, suffer the same fate. The end is only delayed. And yet much of the oil can be converted into bodies more valuable than fuel or illuminants. This has been shown to be true in the case of the eastern petroleum, and California oil is much more complicated in structure and contains many more valuable products. Petroleum is never homogeneous bodies, but are made of many constituents, some gaseous, some liquid and some solid. The Pennsylvania oils are made up mainly of paraffine. The California oils contain in addition to these paraffins, what chemists term benzenes and naphthenes. These latter bodies are analogous to some of the constituents of coal-tar, which, as has been shown, is so valuable that coal is distilled for the exceedingly small percentage of tar that is formed; and the valuable benzols make up only a small fraction of these tars, so that the absolute amount of these aromatic bodies obtained from coal is exceedingly small, a fraction of a per cent. Consequently their price is high, which is maintained by the great demand for them. In California oils we have many of these bodies in relatively large quantities, nor is it very difficult to isolate them. Frequently, simple distillation will suffice. The valuable xylol and sev-

eral qualities of these important constituents in the two classes of oils, but it might be said in passing that the question is one perfectly capable of solution. The most profitable way would be to devise methods of converting the distillates of the California petroleum into bodies identical with, or with the same illuminating qualities as those obtained from Pennsylvania oils, rather than devising methods of washing the distillates to obtain a satisfactory coal oil. This latter method, while it can be carried out more or less successfully, necessarily wastes a large proportion of the distillate. It would be better, by some chemical treatment, to convert the unsaturated bodies to saturated ones, the undesirable ones to the desirable ones. The question is theoretically comparatively simple, but no one as yet has devised an economical practical process. A great deal of experimental work must be done towards solving this question, and also the one of determining what constituents of technical value exist in the crude oil. This work is being carried on at the University of California, as well as the facilities allow, and a good start has been made. The problems are new, and in many cases are difficult of solution, but they will be solved. Another great need for chemical in-



Wells of Petroleum Center Oil Company, in the Kern River Fields.

but with the single idea of making carbonate, the by-products were allowed to go to waste, and hundreds of thousands of tons of muriatic acid and calcium sulphide were poured into the air and into the streams and were lost. More than this, they were a detriment and nuisance, and by process of law the manufacturers were compelled to impound their by-products. But, as a result of this regulation, use was found for them and now they are a profitable part of the manufacture. The same thing is true in the modern ammonia method for making carbonate of soda.

Another striking example is that of coal-tar. At first, a by-product of gas manufacture, it was allowed to go to waste. Little by little the various constituents it contained were manufactured into salable products, and so valuable have these former waste bodies become that conditions in some cases have been reversed, and coal is distilled for the tar, and the gas is thrown away.

Everywhere chemists are seeking to make use of the by-products. Modern industrial chemistry, like everything else modern, is worked on enormous scales, and the accumulation of residues becomes correspondingly enormous. The ideal chemical process is where everything is useful and salable, and little by little all chemical manufacturing is approaching this ideal.

Take the slags from the Thomas process for making iron. Slags are ordinarily waste products and are thrown away. They were shown to contain phosphorous, and were ground up and used for a fertilizer. In some cases the slag is more valuable than the ore. The waste molasses of the sugar refineries is being converted into alcohol, or it may be distilled with formation of tri-methyl amines and other valuable substances. The ash is a rich potash fertilizer. All the spent acid of the powder factories was formerly run to

burned up to get rid of them. Many valuable products could be made from the cellulose contained therein. Until comparatively recently none of the cream of tartar from the wineries was saved, although it was worth forty cents a pound. Thousands of pounds of oranges and lemons go to waste, where valuable oils and acids could be extracted.

One of the best examples of a neglected field for chemical research is California petroleum. Most of it is used up as fuel and is burned up just as it comes from the ground. A percentage is distilled, but most of the distillates, with the exception of a

eral of its homologues may be thus separated, and they are present in no inconsiderable quantities. Other valuable constituents of California oils are the nitrogen and sulphur compounds. Some of them are of value as such, for the nitrogen compounds can be converted into ammonia, which is always salable at a good price.

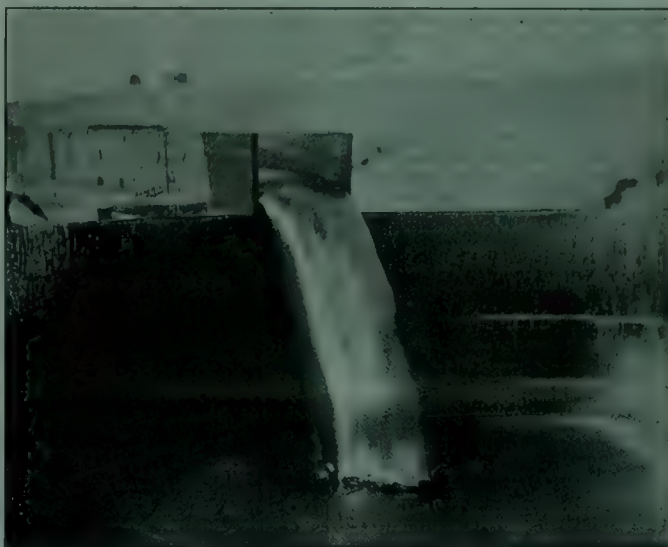
A second field for investigation is to devise methods for the improvement of the illuminants and lubricants distilled from California oils. It would be beyond the limits of this paper to explain the reason of the differences between Pennsylvania and California oils that determine the different yields

vestigation of California petroleum was strikingly shown in the case of the Progreso disaster. There are elaborate but proper regulations in regard to transportation and storage of oil, but practically no mention is made of the chemical constitution of the oil. And yet the character of the oil determines in a large degree the possibility of an explosion. The storage conditions are of importance, but the constitution of the oil is of more importance. The danger point cannot always be determined by applying a single test such as the flash point. Many other conditions will influence the liability to an explosion. And even if the flash test be employed, the apparatus usually employed is so primitive that very discordant results may be obtained even in the hands of experts. What is needed is a careful survey of the whole question and the adoption of proper and just regulations. The tests to be applied should be clearly defined and the instruments used should be modern and accurate. They need not be complicated and cumbersome, but above all they should be accurate.

In conclusion, we may safely say that in California petroleum we have a great field for investigation. The composition of the oil is so complex and it contains so many bodies that will certainly prove of value that it is almost certain that the next few years will witness an entirely different method of working the oils. The isolation and purification of these products, and the improvement of the quality of the ordinary distillates will furnish problems that the most ambitious chemist will be glad to solve. That he will solve them is certain, and when his task is accomplished, his success will be for the benefit of the whole of California.

Edmond O'Neill.

Associate Professor of Chemistry, University of California, Berkeley, Cal., December 20, 1902.



Oil from Well of Chicago Crude Oil Company, Kern River.



Wells of Center Oil Company, Whittier, Cal.



## FLASH TEST OF OIL.

### Matters of Vital Interest to Users of Liquid Fuel.

#### How and Why Oil Gives Off Inflammable Vapor.—

#### How This Becomes a Source of Danger, and How the Danger Can Be Avoided.

By Paul W. Prutzman.

The flash-point of an oil is rather loosely defined as "the temperature at which it will give off an inflammable vapor." It may be of interest to point out how and why an oil gives off inflammable vapor, how this vapor may become a source of danger, and how such danger may be obviated.

In the first place, oils do not burn, though their vapor does. That is to say, a portion at least of the oil must be changed to a vapor or gas before ignition can take place, but combustion once started will furnish (generally) enough heat to convert more of the liquid to a gaseous condition, so that burning may go on without the aid of any outside heat. For instance, if a lighted match be plunged into a cup of gasoline, the oil will at once burst into flame, because gasoline is so volatile that evaporation (that is from liquid to gas) is continually going on. But if instead of gasoline we take a good grade of kerosene, the match would be extinguished, for the reason that kerosene requires a higher heat to convert it into vapor. If instead of a match we used a gas jet, and kept the flame in one place on the surface of the kerosene, this spot would soon be heated sufficiently to vaporize the oil, which would then take fire, and would probably continue burning. If in place of kerosene we used a heavy lubricating oil, we would probably have some difficulty in lighting it, even with a gas flame, and if we succeeded in lighting it the flame would go out almost as soon as the source of heat were removed.

It is well known that different oils give off vapor at different temperatures. For instance, gasoline vaporizes at the ordinary temperature of the air, so that if a quantity of it be left uncovered it will quickly disappear. Kerosene being less volatile requires some heat to make it evaporate, the ordinary grade not giving off any sensible amount of vapor below 110 to 120 degrees Fahrenheit. Lubricating oils require yet more heat, until finally we come to a heavy cylinder oil which would not evaporate appreciably under 600 degrees Fahrenheit.

If now, instead of heating the oil in an ordinary vessel we place it in a small glass cup, insert in it a thermometer, and provide means by which a flame or spark can be passed over its surface at regular intervals, we have a flash tester. The ordinary instruments used for that purpose consist of a glass cup for the oil, a little larger than an egg, suspended in a little vessel of water (called a water-bath), and the whole set in a sheet metal frame to hold it in position. An arm holds a thermometer so that the bulb dips in the oil, a small alcohol or gas flame heats the water, which in turn heats the oil, and an arrangement is added by which at intervals an electric spark may be passed between two metallic points set close to the surface of the oil. If we fill the cup with the oil to be tested, light the flame under the water bath, and every minute or so pass a spark over the oil, some time may elapse before any results are seen. Finally, however, a little blue flame will be seen to flash across the surface of the oil. The temperature indicated by the thermometer at this point is called the "flash-point." It means simply, that the oil has become hot enough to give off a sensible amount of gas or vapor. If we continue to heat the oil, passing sparks occasionally, each spark will produce a flash, each flash a little larger than the one before, until finally the oil will burst into flame and continue burning. The temperature noted here is called the "burning point" and indicates that the oil is sufficiently hot to give off

enough gas to maintain a steady flame.

The instrument described above would be an open tester, since the surface of the oil is open to the air. The "closed test" instrument differs simply in having a tight hood over the oil cup, with a small hole on the top. This hole is closed by a slide, which is drawn back when the spark or flame is applied to the opening. The difference in results, which is well known, is due to the fact that in the open test the gas and vapor given off by the oil is partly carried away by the air, by diffusion and by air currents, so that a pretty steady stream of gas must be given off before enough will be present between the sparking points to give the flash. In the closed test the vapor cannot be carried off in this manner, but mixes with the air in the hood until in the right proportion for explosion, when the flash results. It will be evident that as one of these instruments collects all the vapor which

is given off, while with the other a large part is carried away as soon as formed, the one which collects all (the closed tester) will give the flash at a very much lower temperature than will the other. As to which of these instruments most nearly represents the average conditions under which an oil might be heated, there is difference of opinion, and I would not care to state. But I think it altogether probable that when we take the conditions existing in a closed fuel tank, the closed test would most nearly represent these conditions. However, there is a fairly constant difference between the results by the two tests, so that if allowance is made for this difference, the flash can be determined by either of the methods. This difference is stated by Boverton Redwood, an eminent authority who compared with the two methods over a thousand samples of kerosene, to be twenty-seven degrees, and while with crude oils the difference would not be so constant as with kerosene, yet it would probably not be less than twenty nor more than thirty degrees, which is quite close enough for all practical purposes. In other words, if we find that to be safe an oil must not flash below a certain temperature by the closed test, and add twenty or thirty degrees to this figure, we would find the minimum temperature at which it should be allowed to flash by the open test.

In fuel oils, there are two causes which lead to the giving off of inflammable gas or vapor. One is the presence of volatile oils which evaporate, the other is the presence of permanent gas dissolved in the oil. Very light oils almost always contain, in their crude state, volatile substances which evaporate readily, and if these oils are stored in a tank with a vent at the ex-

trême top only, they will fill the tank, displacing the air, by vapors which are heavier than air. While the very heavy crude oils very seldom contain much volatile oil, they sometimes hold gas in solution. This gas is held by the oil just as carbonated water holds gas in solution after the effervescence is over, and in the same way the gas is forced out when the liquid is heated. To all practical purposes, the difference between vapor and gas in fuel oil is that the quantity of gas which might be held in solution in a heavy oil is limited, while a very light oil may give off an indefinitely large amount of vapor.

Another important point is that gases or vapors of this nature will not explode except in the presence of air. Suppose we had a tank containing a little very light oil, which had filled the tank entirely full of vapor, displacing all the air. If now a light were made inside the tank without admitting the air, the light would be extinguished. If the light were placed at the vent of the tank, where air and vapors meet and mix, the vapors would burn quietly. But if the tank were filled with a mixture of vapor and air, in just the right proportion, a violent explosion would result. The proportion of vapor to air which would produce the most violent explosion would depend somewhat on the nature of the vapor, but roughly it may be put at from two to four per cent. Any increase of either air or vapor beyond this proportion, would lessen the explosion, until finally there would be none at all.

In order then to have an explosion, we must have in the fuel tank an oil which gives off gas or vapor at the temperature at which it is used, and the mixture with this gas or vapor of a certain amount of air. Furthermore, it must be possible that a flame or



Well of Bay City Company, in 22, 32-23 Midway.



spark, or a red-hot body, might come in contact with this mixture. Having these points, the inquiry will be, as to what precautions can be taken to have an oil which will not give off gas or vapor, and to further provide against danger in case an unsafe oil has to be used.

In the first place, if we determine the temperature of the oil tank at the end of a day's steady run, we will have a close approximation to the maximum temperature which the oil will reach in use. If the burner installation is such that the oil is pumped against a "dead end"; i. e. simply held in the pipes under pressure, so that only that oil pumped which is immediately used, and none returned to the tank, the temperature of the tank will be simply that of the surrounding air, and this is undoubtedly the safest system, though there are mechanical disadvantages. On the other hand, if the circulating system is installed, where more oil is pumped into the system than the burners take, and the excess returned to the tank, the temperature of the tank may rise greatly in a few hours, as usually the oil is heated before going to the burners, so that what returns to the tank is hot. Whichever system is in use, if the highest temperature to which the oil rises can be found, and we add to this figure say thirty degrees, to cover the difference above noted between the two methods of testing, we have the minimum figure at which the oil should flash by the usual open test to be quite safe. To such a figure should be added a small allowance to cover errors, and to leave a margin of safety, the size of which allowance would be a matter of opinion.

But if the figure obtained in this way should be found to be so high that an oil fulfilling the requirement could not practically be used a few simple precautions would add greatly to the safety of using an oil of itself unsafe. In the first place a fuel tank should be perfectly tight, so that no leakage could take place, and this is essential not only in the portion of the tank below oil level, but also in the upper portion and in connections, as a vent at or near the ground might allow gas to escape, which being heavier than air, could travel over the surface to a fire some distance away. It should of course be so placed that its collapse would not endanger its surroundings: under ground is the ideal situation. Again it should have a gas vent extending as high and as far from buildings as is possible, and the opening for filling should be so fitted that when not in use it may be kept tightly closed. If any gas or vapor is given off, its natural tendency is to escape by the lowest opening. I am not much of a believer in the compressed air method for clearing a tank from gas, as I should consider it safer, if using a gassy oil, to allow the vapor to completely fill the tank, in which condition it would be comparatively harmless, rather than to convert it into an extremely explosive mixture by admixture of air. A much safer arrangement is a steam-pipe leading into the tank, so placed that its opening will be always above the surface of the oil, and provided with a handy valve by which a full head of steam may be instantly turned into the tank. Steam is extremely efficacious in quenching and preventing gas fires, and cannot form explosive mixtures with the gas.

With such simple precautions as these, any fair grade of oil can be handled with almost as much safety as can wood and coal. It would certainly seem to be rational to choose an oil which will leave a fair margin between the maximum temperature at which it is used, and the lowest flash-point. With ordinary conditions, there should be no difficulty in doing this, as most of the oils sold here at prices making them available for fuel, have high flash-points, well above what would be needed for any properly installed fuel plant.

I would not be misunderstood as taking to myself any credit for originality in the above remarks, which to those familiar with the regulations of the Fire Department of San Francisco, must seem very trite. The subject is one which might well be dwelt on, even at the cost of repetition.

Paul W. Prutzman.

San Francisco, December 22 1902.

## HALF MOON BAY DISTRICT.

### A New Oil Region That Promises To Be a Great Producer.

The Oil Thus Far Obtained Not Great In Quantity, But Is of the Best Quality For Refining Purposes Yet Discovered In the State.

No history or account of the oil fields of California would be complete without mention of the prospective fields located in San Mateo county near the town and harbor of Half Moon Bay.

The term "prospective fields" is used because up to the present time just enough oil development work has been done to demonstrate the fact that oil exists in the field, but not enough work has yet been done to secure an output of oil enough to class the field among the producing territories of the state.

The development work now being done is by no means the first to have been tried in this field.



J. E. Kerr.

Ten years ago or more the Pacific Coast Oil company, now included in the Standard, thought enough of the oil indications in the county to start work in the Purissima canyon on a large scale. A bunkhouse for the men was erected containing forty rooms, a fine house for the superintendent was built, and several wells were sunk, some deeper than others, but most of them shallow. In some of these wells oil was struck together with much gas, and for a while several of these wells were thought to be good producers, and great excitement resulted. In time it was shown that the drills had penetrated only very thin strata of oil sand, which contained some

oil, not enough, however, to warrant the company either in drilling more wells or in keeping those it had drilled. The entire plant was abandoned, and reverted to the owners of the land, who have since that time obtained quite a revenue by pumping oil in small quantities from the old wells and selling it at high prices to those desiring it. It is a high gravity 52° oil, the best in the state. A picture of one of these old Pacific Coast Oil company's wells is given with this article.

After the abandonment of the field by the Pacific Coast Oil company little was done in the search for oil for some years. Although geological indications of the presence of petroleum in great quantities abounded, and although scientists grew enthusiastic over the possibilities, capital became chary of investing money hunting oil after the experiences of the P. C. O. C.

About a year or a little more ago a firm consisting of Guiberson, Sallee & Hayne renewed operations on the Purissima, and with considerable success, sufficient to warrant them in continuing operations, until now they have a number of shallow wells, have five of them pumping, and, if the well were kept free, could easily obtain from the five wells fifty barrels daily. The two best wells are now choked up with sand owing to the gas pressure, and that they are not cleaned out is due to the fact that the tools necessary are now employed in the drilling of a deep well. The oil from these wells is all sold to the Knapp refinery at Half Moon Bay, where fine distillates are made. This refinery was started last fall when it became evident that the Guiberson wells were fair producers. The oil is better than 50°, and sells at \$1.25 at the well.

On the next canyon north Frick & Parker have two shallow wells, small producers, and are going after a deep well.

The companies with which Mr. J. E. Kerr is connected are making honest and apparently successful efforts to get oil in the Tunitas canyon. The companies are the Paxton, American, Duchess, Illinois and Wisconsin companies. Of these the Wisconsin was the first to put down a well to the oil, and the result of the drilling is known only to a few. The well was drilled over 1,200 feet when oil was

struck in large quantities and in a sandy formation. The oil was abundant, and flowed over the casing, down the hill, and its course down the creek can be marked for miles. No one was allowed to inspect the well, and Mr. Kerr would make no definite statements except to state he was well satisfied with operations.

It is believed that the oil struck was struck in the first real oil sand yet found in the Half Moon Bay field, and that the well is now being pushed down to the lower sand strata, which are supposed to lie at a depth of about 1,600 feet.

Across the ridge the San Mateo County Oil company is endeavoring to complete their well, which is now down over 1,100 feet. This is a Kansas City proposition, and the manager, Dr. Neumeister, has great faith in it. The well has a big gas flow, and signs of oil are abundant.

The Pilarcitos is a Redwood City company, drilling north of the Wisconsin.

The Cascade is an eastern company that is waiting development before drilling. The company has a large acreage of land that has good oil indications.

### SUCCESSFUL OPERATOR.

Has Made a Success in the Eastern and Western States.

Mr. C. M. Hatcher is a Kentuckian by birth, and came to California about fifteen years ago. If memory serves correctly about the first real hard job he ever tackled was hustling subscribers for a paper in Southern California the editor of the PACIFIC OIL REPORTER was then publishing.

Charlie was an unsophisticated young fellow in those days, with an innocent face, a bland smile and a Southern drawl and accent that would soothe the



C. M. Hatcher.

weary brain and make the average man fork out \$2.50 for the paper as if he was doing himself a favor. At any rate Charlie made a stake, and having made it pulled out for new fields. He got hold of fruit land in Alameda county and made a bushel of money out of it, went into a railway deal in San Jose and came out way ahead, came to San Francisco and turned his attention to promoting oil and mining propositions. He has made a success of these, and has now opened offices in Boston where he has got some all wool and a yard wide propositions, both in oil and in mines. It is needless to say he will be successful, and when he tires of the Eastern cold and snow he can have a situation on the OIL REPORTER any day he likes.

### More Tankage Provided.

The Southern Pacific is increasing its tankage on the San Joaquin division. A huge tank, 55,000 barrels capacity, was completed a few days ago at Santa Barbara. Work will be commenced at once on one of 15,000 capacity at Mohave. Six new tanks of 55,000 barrels each are being erected at Oil City in the Kern River field, where the company already has eight completed. One of 5,000 has been erected at Goshen, one of 15,000 at Fernando, and three of 55,000 each at Olig are in course of construction. It is expected that a large tank will be erected later in Bakersfield.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.



Old Well of the Pacific Coast Oil Company, San Mateo County.

Subscribe for the PACIFIC OIL REPORTER.





Refinery of Columbian Asphalt Company at Carpinteria.

## DEVELOPMENT NEAR THE SEA.

### What is Being Done at Summerland and Carpinteria.

#### A Deep Well Being Sunk on Ortega Hill Back of Summerland—The Refinery at Carpinteria Now Running Successfully—Its Product in Demand.

By C. W. Ayers.

Just at the present time there is no part of the State of California causing more interest in oil matters than Santa Barbara county.

Until several years ago, it was not believed that more than a nominal amount of oil-bearing territory existed there, although the most flattering "indications" could be found in abundance in more than one section. The very prolific fields of Kern county drew all the attention of speculators and producers to that point and neglecting others that now prove to be as profitable, if not as prolific a section as any on the Pacific coast. The Summerland field with its 350 or more producing wells, that for the past five years have been steadily yielding between 25,000 and 30,000 barrels of oil per month without in any apparent degree lessening the supply, and all embraced within a limit of not more than 100 acres of land, shows at once the enormous possibilities of further development.

The newest field now under development is the district around and near Santa Maria, in the northwestern corner of the county and distant from the Summerland field about fifty miles.

Less than two years ago, the work of development was begun, when a test well was put down to a depth of two thousand feet into the deep oil-bearing strata, and to-day the production from twelve wells, varying in depth from 900 to 2,100 feet amounts to about one thousand barrels per day.

The work of proving this field was very expensive, and trying on the nerve of the few men who were putting up the money to pay for it, and when their first well, that was carried to a depth of 2,000 feet at an outlay of forty thousand dollars, was "collapsed" by an earthquake, and rendered

useless and a heavy loss to them, it would have been enough to discourage less intrepid men, but fortunately for this section of the county, and also for those financially interested, they did not give up, but went immediately to work to put down another well only a short distance from the first one. Within four months it was completed, and came in with a flow of six hundred barrels of twenty-two gravity oil per day of twenty-four hours. Since then every well put down has proven a success, and another large and prolific oil field added to the credit of California.

At Summerland, all the wells were completed at depths ranging from 150 to 400 feet and yielded when first brought in from 50 to 100 barrels per day.

These shallow wells were not expensive to put down, and the result is that the small tract of land obtainable for the purpose, was literally honeycombed with holes, and so close together that the production of one good well was divided into fifteen or twenty, so that the average yield of each well was cut to about five barrels.

Even this however made a good and profitable well, as a group of fifteen or twenty wells is pumped and handled by one power plant, and thus operated as one well. Owing to the great scramble among oil promoters to get land in this field, wherein they were absolutely sure of getting "production" at a small outlay, the small tract of about 100 acres was cut up and divided into so many small holdings, that no one was apparently justified in sinking a deep and expensive hole to reach the deeper oil bearing strata beneath.

The great Ortega Rancho, containing nine hundred acres of land, completely surrounds the small tract that was divided up and developed, owing to the unsettled affairs of an estate to which it belonged, as well as being in-

involved in serious litigation, it was impossible for any person or company to obtain a portion of it of sufficient size to justify the expense of sinking a deep test well.

Within the past months all these difficulties have been removed through the sale of the rancho to Mr. I. H. Ackerman of San Francisco, who in turn has leased to the Crescent Oil company fifty-two acres, and the company are now engaged in developing it on an extensive scale.

One of the heaviest and most complete drilling outfits on the coast is at work putting down a sixteen-inch hole, and have now reached a depth of over eight hundred feet.

The several known strata of oil sand, as reached by all the shallow wells, were passed through and cased out. At seven hundred and forty feet a new stratum was reached that showed considerable oil, and it is now believed that it will not be necessary to go to a depth of two thousand feet, as originally supposed, to reach the heavy producing sands.

In the Santa Maria district the oil bearing strata are buried deep with massive deposits of tertiary shale. In the Summerland district much of the covering has been eroded and washed away, bringing the oil strata nearer to the surface, thus making considerable difference in depth of hole necessary to reach them.

Owing to the movement and change of position of the formation at Summerland it has been found very difficult to put down a deep hole. It is with this knowledge that the Crescent Oil company started its well with sixteen-inch casing, which gives an almost certainty of finishing a successful well at a depth of 2,000 feet if necessary, and which the company are fully prepared to do.

Just south of the Summerland field, and within full view of it along the coast, lies the rich deposits of pure asphaltum that is known among manufacturers of this material as the richest in pure bitumen of any in the known world.

Covering a tract of about 100 acres in extent, and starting from the very ocean edge, with its bottom several feet below the water level, is an enormous deposit or field of asphaltum-saturated sand averaging in depth or thickness about fifteen feet. This entire space was once occupied by a great lake of liquid bitumen, into which the beach sands were blown by the winds and washed by the ocean water until the liquid became absorbed by the sand, and formed into an almost perfect

street-paving material, consisting of about 15 to 20 percent asphaltum and 80 to 85 percent clean beach sand.

In the course of time the greater portion of the volatile substances evaporated and left the heavy tar-like residue, which formed a perfect binder or cement to the sand, which has packed down to almost the condition and consistency of a sandstone.

Directly beneath this "bituminous" sand, and forming its bed, is the shale rock through which the liquid that formed the lake was forced from its source of supply far beneath. In many places in the bed of the lake where the sand and surface deposits have been removed liquid asphaltum can be seen forcing its way up, to again refill the place whence the other was taken.

Many thousand of tons of pure asphaltum have been taken from only several acres of this land, and it was obtained by extracting and separating it from the sand.

It apparently did not occur to the operators that underneath the surface deposit of saturated sand there must be a great and inexhaustible supply of the pure liquid that could be opened and brought up by sinking wells down to it and pumping it out, and at far less expense.

The Columbian Oil, Asphalt and Refining company, through its manager, Mr. John R. Scupham, saw the opportunity, and was quick to grasp it.

This company has acquired by lease and purchase nearly the whole of this immensely rich and valuable tract of land, and have now a large force of men and machinery drilling wells and otherwise developing it.

They have just completed and are now operating one of the most complete and successful refining plants in this state, and are turning out an exceptionally high grade of asphaltum and engine and stove distillates. They are equipped with a large amount of storage for both crude oil and their refined products, a feature of great advantage over many refining plants, in that they need not make any sacrifices to the market for lack of space to hold for better prices.

The manager is now engaged in planning to erect storage tanks at several points in the state for the delivery of stove distillates to consumers.

Orders for this exceptionally fine grade of asphaltum are received daily from all parts of the United States and from Europe that will keep them busy for some time.





Laying the eight-inch, 278-mile Pipe-Line from Bakersfield to Point Richmond.

## OIL FIELDS OF KERN COUNTY.

### The Largest and Richest Oil Territory Yet Discovered.

### An Oil Region That In Extent and Capabilities Exceeds Any Other In the World, and Which as Yet Has Hardly Begun to Be Developed.

By H. G. James.

The experience of a sky rocket is the history of nearly all oil fields.

Dormant acreage, a touch of the master hand, a blaze of glory, regression, history.

But what a story!

If all the thrilling domance, all the wild tales of fortunes made and lost, all the frightful records of murder, fire and explosion were extracted from that innocent word OIL, and woven into a single novel narrative, it would make most exciting reading, and in comparison, the wildest and most

fanciful dreams that ever found origin in the fertile imagination of Marie Correlli would pale into insignificance and tameness.

But God never made anything useless or low; he had a purpose in all his handiwork.

So the steep hills of Pennsylvania, the low swamps of Ohio, the crazy mountains of West Virginia, and the barren lands of California, by the touch of the master hand of man, have been made to produce literally rivers of oil to facilitate the ways of com-

merce, enrich the nations and employ man, if not make him happy.

Oil fields; besides petroleum, sometimes produce queer crops. Eastern fields produced some great wells, not a few hyberbolical fortunes, one or two dry holes, and a rich harvest of liars of rare genius.

California has produced hers.

Oil was a known quantity in the Keystone and Empire States years before it became a commercial product. It was finally developed as a result of surface indications.

The same was true in California.

In these Eastern fields there was the first wild, mad rush; the expending of vast fortunes; the organization of numberless corporations of astounding capitalization, the bursting of the bubble—the slump.

California beat them all.

Then came the reaction, the settlement to legitimate business, the establishment of markets, the realization of profits as a result of natural and conservative operations, real benefit to the community, the amassing of wealth.

California is today entering upon this period.

In fact, to this time the Golden State has been no exception to the rule since the palmy days of Oil Creek.

And there is no likelihood that the future history of the industry here will prove an exception. Think of a real oil field without some big wells, immense fortunes that never were made, at least one or two dry holes, a liberal allowance of blasted hopes, possibly a lone honest reporter of conditions, and a notable brigade of oil country liars.

An oil country would be dull and uninteresting without them; it would not be an oil field.

California has not failed.

And in matters of petroleum Kern county occupies the same position in relation to the industry in this State that McKean county, with its great Bradford field, did in Pennsylvania.

The great rush, the wild expending of money, the development of the business to a commercial and permanent basis, occurred in Kern county. And it came at a time when it meant almost salvation to the State, especially the southern part—after long years of drought, the discovery of this oleaginous fluid came like a refreshing shower to save the country.

California cannot be too appreciative of the industry that has done so much for the State.

### DISCOVERY OF THE KERN FIELD.

It is not the purpose of the writer to give a scientific account of the de-



Constructing a 35,000-barrel oil tank for the Standard Oil Company in Kern River Field.



velopment of the Kern River oil field. Others have done that and speculated upon scientific principles until the average oil man has little faith in science so far as it relates to oil. This will be a narrative of facts pure and simple.

Oil Creek in Pennsylvania had flowed just as it does now for countless generations previous to 1859. A black, peculiarly smelling substance had oozed out of the ground and, floating upon its surface, was carried to the Gulf of Mexico in search of its Beaumont cousin. Indians gathered the foul-smelling stuff and sold it for medicinal purposes. Time rolled on and Eastern civilization developed a need. Then Nature raised up a man with an idea, and clothed him with courage and energy. And Col. Drake left his New England home for the then wilds of Pennsylvania, and after many discouragements, but firm in his convictions, he finished the first oil well on the banks of Oil Creek.

There were days of depressions, years of uncertainty, but men worked on and the industry finally made Pennsylvania rich; it produced great men, vast fortunes and astounded the world. Years after a grateful people raised a magnificent monument to the memory of the discoverer of oil.

Kern River rushed down the deep canyons, through the low lands to Buena Vista lake, countless generations ago. It was gushing in its usual way, and not unlike the waters of Oil Creek, when Drake began earning the reputation of being a lunatic. A dark brown sand cropped out along the bank and Farmer Means observed that sometimes a queer, greasy fluid oozed out and floated down the river. Like old John Ormsby, who sold clothes-lines to pay the taxes on a worthless farm because he "knewed" there was "ile" under it, Means stuck to it that he was living in the presence of a great oil basin. Old John Ormsby plead with moneyed men to drill his farm, and they did, but didn't get anything. They drilled again with the same result. But John kept on selling clothes-lines and paying taxes. Finally a big well was struck, and John became suddenly rich. And thus in perseverance rewarded.

Farmer Means "knewed" there was oil under his place, but he couldn't find the right man to go after it.

California continued to grow; commercial and manufacturing industries increased; fuel was scarce and expensive; in its natural course the time arrived. The Great Ruler of the Universe unlocked the mystery.

In 1899 Joe Elwood, like Col. Drake, was pursuing his peaceful way in other

parts, when Opportunity knocked and whispered to him. He hitched up his team and started across country from his Sanger ranch for Kern county. He inspected the asphaltum beds at McKittrick and started on his return. He had seen enough at McKittrick to cause him to dream dreams of second editions of Drake and "Coal Oil Johnny." He was impressed with the similarity of conditions among the hills above Bakersfield and those at McKittrick and concluded to make an investigation. With a Drake definiteness of purpose, he set about to open up the great Kern River field.

Finding it necessary to go to San

Francisco on business Elwood arranged with his brother to visit the Means property and report to him. The brother approached Means on a pretense of wanting a wood contract, and gradually turned the conversation to the subject of oil. Mr. Means was at once communicative and gave Elwood all the information at hand. He showed where gas was escaping from the ground and where he had dug out oil sand in constructing a water ditch. Means was anxious that some one should prospect his property, and Elwood and his father began excavating where the exposure of sand had been discovered. They found a sand satu-

rated with oil, but about this time trouble came. It was May, and the hot weather melted the snow in the mountains and caused the river to rise quickly, flooding the hole. After this the prospectors began to sink a shaft on the bluff, thirty or forty feet above the river. Joe Elwood now returned and recognizing, as he believed, a good thing, proceeded to locate public lands. The hole was dug down to a depth of forty-three feet when the oil sand was reached. The sand being loose, it became necessary to curb the rest of the way down. Gas came into the hole, making it dangerous for the workmen, and "machinery" was ob-



Cement Reservoir in Kern River District.



A Pumping Jack in the Kern River Field.



tained and the well "bored" to the depth of seventy-five feet, seven feet deeper than the old Drake well. The hole began to fill with oil and drilling was discontinued. The oil raised to within twenty feet of the surface, and the great Kern River oil field "was discovered."

Elwood was clever enough to appreciate that he evidently had a good thing and secured from Mr. Means the following interesting document:

"Whereas, Jonathan Elwood, and J. M. Elwood, are desirous of prospecting for oil, gas or minerals on the west bank of Kern River on section three (3) in Township Twenty-nine (29) South, Range Twenty-eight (28) East, belonging to T. A. Means, it is agreed that they are allowed the exclusive right to do so for the period of ninety-nine years from date on the following terms, viz.: That they pay all expenses of boring, developing and tankage of said product (in case enough be found) and the division shall be as follows, to wit: One-fourth to said Means and Three-fourths to the above named Elwoods.

"THOMAS MEANS.

"JONATHAN ELWOOD.

"J. M. ELWOOD.

"Kern River, Kern County, Cal., May 25, 1899."

Means had been fair with the Elwoods, and they in turn showed consideration for him. Elwood subsequently said: "Undoubtedly, we could have made the conditions less favorable to Mr. Means, and assuredly, if he had been as 'wise' as a few years' education in an oil excitement makes a man, he could have made the conditions so onerous to us that we would not have been able to fulfill them at all. As it was, Mr. Means got a very fair bargain, and we, who were not able to go ahead and drill a number of wells, and fully develop the property, would have been completely left out."

When land was selling as high as \$7,000 an acre doubt was expressed as to the value of the Means lease, but the best legal talent has pronounced it good.

The first Kern River well drilled under contract was put down by Milton

McWhorter, for the Elwoods, but his machinery was inadequate, and he was unable to get below 40 feet. He failed to get the plug to the bottom and lost 40 feet of the hole. However, it proved a good well, and has produced an average of fifteen barrels a day ever since, many times paying for itself.

The news spread like wildfire and prospectors flocked into Bakersfield from all parts of the world.

The Elwoods never lost their heads, but looked out for themselves. Today they are comfortably "fixed," and when the writer sought an interview with the second edition of Col. Drake, he could not find him because Elwood, like President Roosevelt, likes to hunt bear. Elwood is interested in the Ba-

kersfield-Fresno Company, the Elwood Oil Company and the Kern River Oil Company, besides owning much valuable land, from which he derives a royalty. He has an income that will keep the wolf from the door probably the rest of his life. He makes his home in Bakersfield.

#### THE OIL EXCITEMENT.

From a quiet little village Bakersfield, in a few months, became a bustling city. Hundreds of thousands of dollars were brought here for investment in the new oil field. The hotels were soon overtaxed, boarding houses were rushed up, prices jumped to the top notch, everything was on the move. Men of all classes, conditions

and degrees—and women, too—hurried to Bakersfield, and in a few short months it was one of the most talked-of towns in the world. There came men of wealth and men without a cent; experienced drillers and men who didn't know a bit from a meat auger; honest men and dishonest men, gamblers, confidence men and adventurers from all parts of the earth. And it is not surprising that withal women of low degree flocked in with the men. They usually do. In a short time it was almost impossible to see a woman on the streets of Bakersfield—the respectable women stayed at home and the other class slept days.

The railroads were compelled to put on extra trains to accommodate the

"too numerous to mention," but be it said that few oil towns have weathered the season as admirably and come out with as few scars as Bakersfield.

The conditions in some respects were favorable to a rapid development of the field, but in others they were very unfavorable. There was no mud and no bad weather, but there was inexperience and lack of material. Unfortunately, in the beginning, the owners of land and leases were men wholly unfamiliar with the oil business. The formation was not understood, and drilling was exceedingly difficult. Men were engaged as managers and superintendents who seemed to think their chief business was to look wise, wear a fine quality of kid gloves and clothes and draw the biggest possible salary. Workmen were employed as drillers who were absolutely inexperienced, and the result was that hundreds of thousands of dollars were squandered in Kern River. Dozen of wells were lost that ought to have made good producers. Companies "went broke" that should have made big money; corporations are still in debt that might have long since been paying large dividends. But that is oil country history, and is one of the necessary parts of the business.

In an incredibly short space of time land was taken up for miles around and the fellow who appeared on the scene fifteen months after the Elwoods dug their river bank well found he was just a little too late.

Geologists and scientific men rushed in with explanations and advice where practical men feared to venture guesses. They had the country on tiptoe with their marvelous statements. They knew what was on the earth, over the earth, under the earth and in the earth. But the practical oil man said nothing, and punched holes into the ground, satisfied that when it comes to oil one man can see as far into the earth as another.

Among the first to arrive on the scene were H. H. Blood, John A. Bunting, Tim Spellacy, Charlie Canfield, J. B. Treadwell and E. L. Doheny, and all became rich.

It required months for even expe-

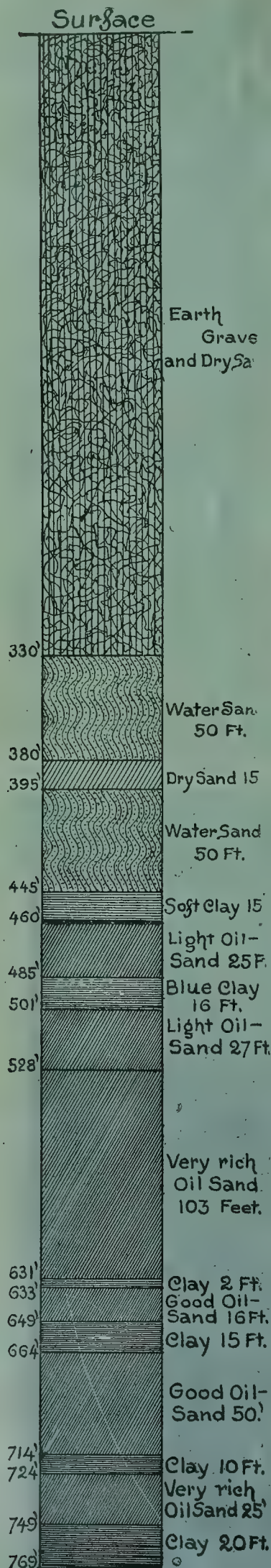


William Hillyery and H. H. Blood, Prominent Operators in the Kern River Field.



Wells and Tankage of the West Shore Oil Company, Kern River Fields.





Log of Well No. 1 of the Sterling  
Oil Company.



Oil from Well No. 1 Sovereign Oil Co., E. E. Burt and H. H. Blood in Foreground.

rienced Eastern operators to understand the new conditions here existing. The oil, instead of being found in a hard rock formation, as in the East, was taken from a loose, moving sand, and instead of being light, 32 to 47 degrees, like the Eastern oils, it was thick and tarlike, varying from 11 to 18 degrees. In some parts of the field there was gas, but generally its absence was more noticeable.

What was the oil good for? How was it going to be pumped? How could it be marketed? These were questions time would have to solve.

It was claimed that Kern River wells found 200, 300 and 400 feet of sand, that the saturation was so much, and that in one hundred years they would produce so many barrels of oil. It was said that with so great an amount of sand and such heavy oil water would do no harm. Men lost their reason in their excitement and heedlessly plunged ahead. There was no end to the great resources of Kern River. Generations hence these same wells would be pumping more oil than now.

Wells were abandoned with no effort to shut off the water. Expenses were scoffed at. All the luxuries were enjoyed.

At first it required from three months to a year to put down a well, and in fact, some of those begun in the early stages are still unfinished. Drillers soon commanded as high as \$10 a day and board and could not be had even at that.

That was two years and a half ago. Times have changed since then. Kern River has settled down to an established basis. The boom days are over. It has been found that experience counts for something; that kid gloves do not make an oil man. That Kern River must be carefully managed to supply the future demand for oil, that water is a serious thing on an oil sand, that a month under favorable condi-

tions is sufficient time for drilling a well. In short, Kern River has entered upon the second period referred to early in this story, and the future is more hopeful.

#### DEVELOPMENT OF THE FIELD.

The summer of 1900 and the following winter witnessed the greatest strides in the development of Kern River. The merry clank of the jars and the tuneful song of the walking-beam were to be heard in every part of the field. During this period land sold at fabulous prices, \$5,000 an acre being realized in some instances, and even more is reported to have been paid. Hundreds of companies were incorporated and stock in some cases was sold where the company did not own a single foot of territory or hold even a lease. In street vernacular the game was worked with a vengeance. The experiences of old Pithole were revived. Ridiculous royalties were paid, often 30, 40 and even 50 per cent. Wells were drilled as fast as men and material could be secured. Before Christmas, or eighteen months after the digging of the Elwood well, there were 250 completed producing wells in the Kern River district, and during 1900, 919,275 barrels of oil were shipped out of Bakersfield. There were fully 150 wells drilling and interest was unabated. So quickly did men take up the craze and push the promotion business that the east and west boundaries of the field were soon defined, but the northern and southern limits are still in doubt. When the conditions are better understood and drillers learn how to reach great depths, 2,000 and 3,000 feet, at moderate cost, the abandoned northern and southern part of Kern River may become profitable drilling territory. In fact, it is almost certain, we are willing to venture, that the day is not far distant when men will be glad to operate the deep territory. That time will come when the

production of the present field drops off and the supply is not equal to the demand. Within the defined limits of Kern River a dry hole or duster has never been drilled, which is quite a notable fact concerning oil fields.

The field activities of 1900 continued until March, 1901, the shipments of oil rapidly increasing during this time. But early in the year it began to be realized that a great deal more oil was being produced than consumed, and there being no prospect of a market operators began to "go slow" and after March but little new work was commenced. By July there was a general shut-down, and with the exception of certain assessment work and a given amount of drilling required by two or three companies to keep up with large contracts, the field has been at a standstill ever since—a year and a half.

Altogether there have been 575 wells drilled in Kern River, representing an expenditure of probably \$8,000,000. Few wells cost under \$4,000, and many cost that amount multiplied several times. It has often been said and never denied that the Century well (never completed) on section 24, cost \$72,000. The Shasta on 14, the Thistle, the Commonwealth, the Defiance, Minerals and a number of other wells each cost fair-sized fortunes in themselves. Any number of wells cost \$10,000 to \$15,000. While 600 wells have been successfully drilled, more than 100 were never completed, and these were the most costly ventures, as above noted. On section 24, 28-27, above thirteen holes were abandoned, and not a successful well drilled. Section 23 has six marked against it; 14 in 28-27 has 9; 12 and 7 in the same range and township have three each; sections 18, 19 and 20, 28-28, have 11, 7 and 5 respectively, while in 29-28 sections 7 and 8 each have eight, besides many others which, to mention, would become tedious reading.

The largest number of producing



wells on a single section is 122 on 4, 29-28. These are owned as follows: Blinn 2, Gold Standard 1, Aztec 9, Wolverine 6, Central Consolidated 13, Red Bank 11, Apollo 9, Kern River 9, Four 8, Alma 10, Alma, Jr. 5, Black Jack 3, Bakersfield-California 1, Petroleum Development 9, Wilson 2, East Pico 1, 2, Zaca Lake 1, Famoso 3, Kern River Mutual 3, Revenue 6, Knob Hill 9.

Next comes Section 28, 28-28, with 74 owned as follows: Canfield Oil Co. 21, Continental 5, Trans-Continental 2, Potomac 8, New York and California 1, Mecca 4, Alma 2, Hecla 2, Bolivia 1, Persens 3, Columbian 4, Vernon 3, Missouri 3, Union 4, Linda Vista 2, Sacramento 6, Richmond 2.

Then comes Section 5, 29-28, with 70 as follows: Monte Cristo 33, Mercedes 4, Del Rey 4, Cortez 2, Section Five 2, San Joaquin 24.

Section 3, 29-28, is fourth in order with 60. The Southern Pacific Railway Company owns two thirds of this section, with 35 wells. The Santa Fe as successor to the Petroleum De-

The other sections included in the pool have from one to ten wells.

There are a great many derricks standing which some time no doubt will represent wells.

South of the river some six or eight attempts were made to drill down to the pay streak, but the sand dips so deep here that on one has yet been successful in penetrating the earth far enough. This again is one of the possibilities of the future. Many believe that the district south of the river will some time be a great producer of light gravity oil.

#### PRODUCTION, PIPE LINES AND TRANSPORTATION

The shipments of oil out of Kern River in 1900 amounted to 919,275 barrels, an average of 76,604 barrels or 512 carloads a month. The total production of the field during that year was in excess of 1,000,000 barrels. Considering the rapidity of the development and the fact that the railroad was wholly unprepared for oil

more oil today than it did with 15 wells. And as the facts seem to be known others in truth, it may safely be said, all who have put their property to test—have had like experience. It is only natural that field has never yet been discovered that would go on increasing in production when enormous drafts were made constantly upon it, and Kern River operators need not have so fooled themselves. The Monte Cristo well that flowed for several months, and gave the field a record, when seen a few days since, was producing as pretty a sparkling stream as one could wish to see—of water. Another company in another part of the field has had the same experience as the Monte Cristo. Two years ago its wells were pumping 200 barrels a day. This afternoon the secretary of the company stated that they are now averaging 50 barrels each. Water in the oil sand has become a serious problem.

It is safe to say that Kern River wells the coming year will not aver-

bought the entire holdings of the Pacific Coast Oil Company. The following year, 1901, the Standard turned attention to Kern River as possessing the greatest possibilities in the State. For a time there were all kinds of rumors in the air. The question of transportation had become a serious problem. The railroad company could not furnish a sufficient number of cars, favoritism was charged, the tariff rates were exorbitant. What was to be done? the operators were asking of each other.

In this dark hour the news that the Standard Oil Company would build an 8-inch pipe line to the coast and erect at Point Richmond one of the largest refineries in the world, came like a God-send to the producers of Kern county. They had heard queer tales about this gigantic and all-devouring octopus, but they were looking for a deliverer and it didn't make much difference to them what kind of a cloak he wore.

Immediately the Standard purchased



Oil Flowing from the Well of the Lion Oil Company, Sunset District.

velopment Company owns the rest of the section with 25 wells.

Fifth comes Section 32, 28-28. There are 57 wells on this division, the largest number, 17, being owned by the Peerless. The rest are Green & Whittier 8, Queen Esther 3, Grossmayer 1, Bear Flag 2, Senator 7, Sovereign 4, Sterling 8, Vesta 4, Hanford-Sanger 2.

Section 30, 28-28, with 47 is next in order. Green & Whittier 1, Mt. Diablo 2, Amazon 2, Nevada County 3, Indiana 2, Euclid 3, Globe 6, Toltec 4, Moneta 3, Hawkeye State 3, Irma 1, Bald Eagle Con. 1, American Eagle 1, Bald Eagle 1, Chicago Crude 7, Orient 3, Kern Oil 2, Jacalitas 2.

Section 33, 28-28, has 37 wells, owned by the Imperial (15) and Thirty-three (22).

Section 28, 28-28, is the only other division having over 25 wells. It has 35 as follows: Reed Crude 14, Comet 7, British California 5, Petroleum Center 4, Kern River 2, California Mutual 1, Kern Oil 2.

transportation, this showing was quite remarkable. But during the following year there was a large increase in shipments. In January the shipments amounted to 158,250 barrels. Four months later they had increased to 218,850 barrels in May and to 400,000 in December, or in round numbers 3,000,000 barrels for the entire year, representing a total production of practically 4,000,000 barrels, taking into consideration the local consumption, by evaporation, loss, etc.

During 1902 the production has averaged over 1,250,000 barrels a month, with only a portion of the wells producing. The possibilities of the field at the present time being approximately 2,000,000 barrels a month. How long it could maintain the output is questionable. While it is impossible to estimate the possible production, owing to the peculiar conditions, it is now known that the wells will not hold up as was expected. The best illustration of this is the Monte Cristo. With its 33 wells it is not producing any

age 100 barrels. If they will not, with the largely increased demands, the augmented facilities, such as pipe lines and refineries will occasion, will necessitate the drawing upon Sunset stocks or the constant drilling of new wells in Kern River. But Kern River will be doing proudly if it averages 50 barrels per well, which, figuring on a basis of 600 producing wells, will give a production of 10,950,000 barrels, a very liberal estimate.

Kern River cannot maintain its present production without the constant drilling of new wells, but this must be expected; it will tend to make better times than otherwise for the oil country.

It is a notable fact that the Standard Oil Company never develops new territory. It wisely leaves the prospecting to the venturesome and when good properties are developed, it buys them at a fair price. In 1900 the oil business had reached such proportions as to "look good" to the Standard, and that fall the big corporation

a large tract of land in the northeast corner of section 7, 29-29, and began the erection there of numerous 35,000-barrel iron tanks, and as fast as they were completed they were filled with oil. Nearly eighty of these tanks have been completed, and it is understood all of them are full of oil. The present storage capacity of the Standard at Tank City is 128,562,500 gallons and three immense concrete reservoirs of 75,000 barrels capacity each are in course of construction.

As quickly as material could be procured in the east the laying of the pipe from Kern River to Point Richmond was commenced and the erection of the refinery at that place was begun. Under favorable circumstances oil will be transported through this line by the middle of next March.

The oil, which is too heavy for pipeline transportation in its natural state, will be heated and forced on its way by immense pumps. The pumping stations, which at regular intervals now dot the valley, are nearly all com-



pleted. The Standard has expended nearly \$3,000,000 in this work, thus showing their confidence in the field.

In addition to the Standard's tankage the different producing companies of Kern river have a combined storage of more than 1,000,000 barrels. Next to the Standard the Southern Pacific and the Union have the largest tankage. Others are the Monte Cristo, San Joaquin, Reed Crude, Kern Oil, Imperial, Revenue, Thirty-three, West Shore, Peerless, Sterling, Canfield, Globe, Red Bank, Chicago Crude, Toltec, Aztec, and Vesta.

There are nearly 35 miles of pipe line in the field, 10, 8, and 6-inch lines, belonging largely to the Standard. The amount of pipe line will no doubt double during the next year, but the tankage capacity when the work now under way is finished, will be nearly sufficient for the needs of the field.

#### REFINERIES.

Webster tells us that history abounds in false facts; an accepted truth today may be the laughing stock of tomorrow.

Ring Refining Company is building a 300 barrel plant on the Alladin property.

These alone during the next year will consume large quantities of the crude product. It will thus be seen that rapid progress has been made during the past twelve months, and the oil business is now in a more encouraging condition, and in a firmer and more permanent basis than ever before.

#### THE COMBINE.

When the slump came in the summer of 1901, the great problem was: "What shall we do?" For weeks and months there were all kinds of rumors of a combine. About this time the Standard announced its plans and then it became a question of Standard and Anti-Standard.

The combine question was discussed pro and con at great length through the newspapers, upon the streets, in the derricks—everywhere two or three oil men were found together it was a pretty sure gamble what the topic of conversation was. Opinion was greatly

divided. The Standard, as owner of the land, collect a royalty from the following companies: Knob Hill, Grossmayer, Kern Oil and Development, Jacalitas, Orient, and Irma, the owners of 18 wells. It will thus be seen that out of 575 wells the Combine owns 198 and collects royalty from 18, less than one-third of the field.

Many of these Companies did not join the movement in the beginning, but have been taken in during the year. The Combine, like the average politician, entered the field with marvelous promises, but it is a noteworthy fact that it has failed to keep any of them. Instead of creating a market and making a price for the oil, one of its first acts was to reduce the price of oil and quotations rapidly decreased until oil was selling as low as 10 cents a barrel. As a result, conditions in the field became demoralized. Operations were at a stand-still and the Combine came in for a full measure of censure. Instead of helping matters, it soon became evident that the Combine had

Combine is today in the same predicament that every organization of its kind has found itself when attempting to compete with the Standard without its own pipe-line or other transportation facilities under its control.

For several weeks the air has been full of strange rumors concerning the collapse of the Combine. It is said that those who have been announced as part of the organization are really not a part of it, that their property has never been deeded over, that the Combine has not kept its promises, that they are about to withdraw. Dissatisfaction has been heard from many sources, and what the fate of the Combine will be is still very largely problematical.

In the meantime the Standard is fortifying itself, making many contracts with producers and filling orders of consumers with characteristic promptness. The transportation and marketing of California oil must necessarily be an evolution and years of experience count for much. In this respect the Standard is able to give the Combine



Wells of the Occidental Oil Company, Sunset District.

row. When Milton McWhorter asserted in 1900 that he could make a fine illuminating oil out of the Kern Crude people laughed at him. About this time the writer received a letter from Dr. Chauncey Forward, the well-known Cleveland refiner, stating that he had made a number of extended tests with Kern River oil and was highly pleased with the results. In many respects Dr. Forward stated he had never had better results with any oil. It is less than three years since people smiled incredulously at Milton McWhorter, but today the Standard is erecting one of the largest refineries in the world at Point Richmond, and four new refineries are in operation at Bakersfield. They are the Pacific, 900 barrels a day capacity; the Union, 900 barrels; the Clark, 300 barrels; and the Vulcan, 100 barrels. At Sunset the Jewett and Blodgett refinery handles 300 barrels daily.

The Mercedes Oil Company is building an asphalt refinery on the lands of the Arizona Western Company and the

divided.

W. S. Porter of Los Angeles placed himself at the head of the combine forces and prosecuted his plans with consummate skill. For a time it looked as if the scheme would fail. Then it was announced that the merging of the interests would take place January 1, 1902, the plan being for those who entered to deed over their entire holdings to the combine and accept as payment stocks and bonds.

The following named companies joined the movement, representing some of the best property in the field, and a total of 198 wells: San Joaquin, Blinn, Gold Standard, Aztec, Wolverine, Red Bank, Central Point Consolidated, Reed Crude, Kern Oil, Comet, Omar, Green & Whittier, Queen Esther, Bear Flag, Senator, Sycamore, Mt. Diablo, Chicago Crude, Hawkeye State, Moneta, Toltec, Missouri, Vernon, Bolina, Hecla, Alva, Canfield, Section Five, Cortez. In addition to this the Combine, or Associated Com-

pany, as owner of the land, collect a royalty from the following companies: Knob Hill, Grossmayer, Kern Oil and Development, Jacalitas, Orient, and Irma, the owners of 18 wells. It will thus be seen that out of 575 wells the Combine owns 198 and collects royalty from 18, less than one-third of the field.

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#### SUNSET AND MIDWAY.

Fortunately for Sunset and Midway Kern County operators acquired experience before doing much in these districts, and the result is that drilling here has been conducted much more carefully than it was at Kern River, and there is little fear of damage to property by reason of water.

It is not necessary at this time to say where Sunset and Midway are—the world already knows that. Sufficient to recall that Sunset is one of the oldest districts in the state. Here the asphaltum beds come to the surface, and here for years the Jewett & Blodgett refinery has been reducing the crude asphaltum for the market and



shipping it out by wagon. Some shallow wells were drilled and a profitable business was conducted, but it was not until the oil business had assumed considerable proportions in the states that attention was turned to Sunset as an oil field. Its inaccessibility and the enormous cost of transportation of material has held it back, perhaps providentially. During the year 1901 the roads became almost impassable, owing to the great depth of fine dust, which rose in such dense clouds as to often make it difficult for the driver to see the horses, and passengers found it necessary to secure a high perch to keep from choking. But the oil prospector is not easily discouraged and Sunset was developed in spite of nature and great expense.

Drilling began near the Jewett & Blodgett refinery and extended in all directions, but it was soon found that the course of the fuel was over the hills toward McKittrick, and that the best property was not where the crop-

out. The Lucky Boy will cost over \$12,000 to drill but proved a bust, and is a valuable lesson. The Sunset Coast people expended \$2,000 to \$15,000 on their No. 1, and have been rewarded with a good well. Both of these wells can now be drilled for half the amount. But others have had nearly as hard luck.

Col. Spellacy estimates that Sunset Midway is able to supply 8,000 barrels of oil a day, or 2,920,000 a year. Perhaps it can.

The opinion of old, experienced oil men is that this well proves in the long run the best fields in the states, and soon will be depended upon to supply the demands of the northern market. The sand is entirely different from that found at Bakersfield, being coarse and pebbly, the delight of the operator's heart. Some of the finest sand in the district is found in the Cresus well and Tim Spellacy is so pleased over it he carries a quantity of it in his pocket to make other oil men look sorry.

question also, so that Sunset may look out rapid development in the near future. It is a noteworthy fact that the Sunset Midway district comprises double the acreage of Kern River.

The question of transportation is now the absorbing one in this field. The two railroads have been planning to enter this field from the coast—one an electric, the other a steam road. Both of these are now actively at work completing their plans. There is also strong talk of a pipe line to the coast, which is only 128 miles distant by the railroad survey.

#### McKITTRICK

There is little new to be said about this field. There have been few if any important changes here since the last Christmas edition of the "Oil Reporter." It is of special note, however, that regular shipments of oil are now being made from McKittrick, as high sometimes as 45 cars a day. The Standard has its storage tanks here and is

however, drilling is as cheap or cheaper here than at Bakersfield or Sunset.

#### MAKING A MARKET.

For a year the oil business of Kern County has practically stood still for the want of an established market. With the growth of the industry is considered, it is indeed remarkable that so great a demand for fuel oil has been so quickly established. But to build a permanent market and facilitate the handling of the product of a great oil field requires knowledge acquired by experience; and while the writer would not give undue credit, it must be admitted that the aggressiveness of the Standard Oil Company the past year has had much to do with the present improved conditions.

A year ago, the "Pacific Oil Reporter," in its special note, remarked: "Even in San Francisco, which is the main market for oil, there is yet to be erected a single tank of capacity equal to the demands of the producing



Wells of the Maricopa Oil Company, Sunset District.

pings were found. It was also discovered that instead of a pool the Sunset field was a long river-like belt, in the east, termed a sucker-rod belt, and many hold to the opinion it will yet be proved to extend from McKittrick, following the hills around to Sunset to Kern River, but this is now only speculation.

However, there is little doubt as to the continuation of the fuel to McKittrick. Sunset and Midway are practically one field, and operations are edging toward McKittrick. Much of the Sunset—Midway oil is lighter gravity than Kern River, and more flowing wells have been drilled here. It is impossible to estimate the production of these wells as they have been plugged as fast as drilled. The average at Sunset is 1,000 feet, at Midway, 1,100 feet. To the present time 136 wells have been successfully drilled, while many failures have been recorded. Some of the Sunset-Midway wells were expensive ventures and will require considerable time with a good market to pay

Sunset presents to the would-be producer the best opportunities to be found anywhere in the state today. Likely territory, in fact as sure as undrilled land can be, is obtainable here on more reasonable terms than elsewhere, but this condition will not long exist, for as soon as the world begins to make demands upon this field for fuel the price of property will advance. A 20-acre piece of land admirably located may be bought for \$1,000, providing a well is put down at once. This same piece of territory in Kern River would bring at least \$1,500 an acre. The land upon which the Cresus is located, six months ago was offered to the writer for \$250 an acre. Sunset holds out splendid opportunities today at moderate figures.

Early in January of the present year the Sunset Railway was opened for traffic, solving the question of transportation and connecting the field with the outside world. For a long time the lack of water was a great hindrance to the development of the district, but the laying of a water line settled the

drawing upon its stocks.

It is instructive to observe the possibilities of Kern County properties when carefully, systematically, and judiciously managed. A little over a year ago the Dabney Oil Company of McKittrick was apparently hopelessly embarrassed. The two largest creditors were the National Supply Company and the Herron Company. After vain attempts to collect, Messrs. C. B. Barnes of the National, and R. H. Herron took possession of the property, conducted its affairs in a business-like way fixed up the wells and increased the production, and in a few months paid off something like \$20,000 indebtedness and turned over the property again, clear of debt and in first-class condition.

McKittrick is now the smallest field in the county, having about 50 producing wells. There are no remarkable producers here, but the wells thus far drilled have proved good paying investments in most cases. The most expensive drilling was in the Capt. Lacy well, which cost \$20,000. As a rule,

fields." This fact held back the progress of the business in Kern County. It was inevitable that unless the industry developed in all its branches equally with the production, field operations must suffer. It was not until the Standard manifested its confidence, and began large undertakings at the seaboard that there was immediate hope for improvement. As soon as the supply exceeded the demand on the transportation facilities, work in the fields had to cease, and for a year and over there have been "hard times" in oildom. It is difficult to say what would have been the condition, or what would have been done had not the Standard stepped in and erected its city of storage tanks and laid the foundations for a permanent market. It is now nearly ready to open its Point Richmond refinery and operate its pipeline; it has big contracts for oil; it is daily creating new demands for fuel of this character; it is buying large quantities and is paying cash for all the oil it takes. The result is many companies have been saved, even during a low



market. Now, with its plans nearly all completed, a better price is being offered for oil, and an advancing market causes a better feeling. Two months ago the prevailing price was 10 cents; now it is 25; then everybody was blue and dejected, now all are bouyant and hopeful; then few wells were pumping, and nothing was doing in the field, now nearly all of the Kern River wells are pumping and operations are picking up, with indications of a general resumption of business.

California oil has passed the experimental stage. The boom days are over. The industry is now on a permanent basis, and must necessarily henceforth be one if not the chief enterprise of its state. Millions of dollars are invested and some of the shrewdest men of the country are at the helm.

#### OIL COUNTRY CHARACTERS.

The oil country has developed some remarkable men. As war brings out the talent for generalship, so oil excitements bring out the true characteristics of many men who by chance or otherwise are concerned in it. It may be luck, it may be genius, but that matters little to the oil greaser who gets a "reputation" in "ile." Many a man too poor to pay railroad fare has walked into the midst of an oil excitement and ridden out in a palace-car. But such men were men of daring, men who had nothing to lose and everything to win. Kern River has produced her share of notable characters.

John Enos belonged to that class of men who refuse to open the door when opportunity knocks. He was the owner of Section 6, in Kern River when the excitement broke out and he is the owner of it yet and probably will be so long as he lives. During the palmy days it seemed quite a certainty that Enos's property was in the direct line of the oil belt and there were a dozen millionaires who would have given half a kingdom to get possession of it. They tried all manner of schemes to induce Enos to sell, but to no avail. He was obdurate. He would not listen.

He would not talk. Men of money employed the most clever promoters they could find to exercise their powers upon the silent Portuguese, but it was no use. They offered him \$100,000 for his holdings, but he neither smiled or said nay. He simply looked at them and maintained silence. He gave no excuse. He kept away from the scene of excitement. He conducted himself like a diplomat, but showed none of



Colonel Tim Spellacy.

\$200,000 for his property, but John Enos was not affected. Then they offered him \$300,000, but he turned from the would-be purchaser without a word and walked away.

"Why," said a promoter to the writer, "I offered him \$320,000 for his land and he simply looked at me. He did not even reply to me. I thought the characteristics of a shrewd financier. By and by they offered him perhaps he did not believe that I had

the money, so I asked him to go with me to the bank and see if my check was not good for the amount. He only looked me in the face and maintained his silence, while great beads of perspiration came on my forehead as I tried to hypnotize him. I drew a word picture of him as a prince back in his native land with a castle and a yacht and fine horses and all the luxuries of a king, but it did not phase him."

Enos owns the land yet and, as we have already said, he probably always will own it. For before many months it was discovered that the oil ran out before it reached Section 6, and the land owned by John Enos so far as oil purposes are concerned is not worth the place it occupies on the map. The men who cursed John Enos two years ago, today are thanking their lucky stars that the silent, little Portuguese did not know a good thing when he saw it.

Probably the most popular man and unique character that has appeared upon the scene since the discovery of oil in Kern River is the genial, whole-hearted Colonel Tim Spellacy. Perhaps his mother called him Timothy, but the boys call him "Tim," and if he has an enemy in the world he has never made himself known. If Tim Spellacy three years ago did not walk home from the Klondyke, it was because the ocean was not frozen over. At any rate, he struck Bakersfield on his uppers, but such a trivial matter is only an incident in the life of a man like Colonel Tim Spellacy. In a short time he was engaged in the oil well supply business. Then he became one of the promoters of the Chicago Crude. Next, he was in the Monte Cristo. Then the leading spirit in the Mascot. Then the organizer of the Illinois Crude, now in the Croesus, and no one knows how many other companies. But if he makes a million in Kern River, everyone will agree that he deserves it all. There is no other Tim Spellacy in the world. There never was another, there never will be. Wherever he goes he spreads sunshine. Wherever he has been he has left men feeling that they

were better because he had been there, and if some morning Tim Spellacy should be missing and Saint Peter should find an illegible name in the register and should ask if there were an Irishman present from Bakersfield, California, Tim Spellacy would be sure to speak out and say, "Yis sor, that's me."

The only mean thing that Tim Spellacy was ever known to do was to call Mr. Hay "Secretary Alfalfa," but we have the assurance of the Administration that he has long since been forgiven.

"Heads I win, tails I lose," exclaimed C. S. Young, as he flipped up a dollar to decide the question of the purchase of Section 31, when Kern River was in its infancy. Tails came up and Young from that day to this has been bewailing his ill-luck. Section 31 has since proved one of the most valuable tracts in the Kern River field. It is estimated to be worth from three to four million dollars and Young lost it by one dollar.

It was this way: There was much speculation as to which course the oil belt would take, whether over the hills or down the flats. Young did not know. Neither did anybody else. He had been told by "expert" oil men that the oil veins generally followed the hills, but a friend attempted to induce him to take Section 31. He was undecided, but finally concluded to let fate decide the matter and with the ease of a veteran gambler he tossed up a dollar, exclaiming, "Heads I win; tails, I lose." He took Section 9 and lost. Section 9 proved unprofitable, while Section 31, as is now well known, brought in some magnificent wells.

Young has had a score of hairbreadth escapes and still lives. He swells up with pride, however, when he is reminded that he does not belong to the same class of Portuguese obstinance as John Enos. But Young got hold of some good lands in Kern River, and for more than a year he has been basking in the warm sunshine of Easy Street; traveling through the East; sojourning in Mexico, and evading the



Wells of the Arcola Oil Company, Sunset Field.



health officers of Texas. He is a chip off the Spelacy block.

If time and space would permit a dozen instances similar to Young's might be recorded. Many fellows missed golden opportunities in Bakersfield. They were too busy having a good time

will continue to be told so long as the world lasts.

There are thousands who spend their time wishing instead of doing and never recognize opportunities until they have passed by.

John A. Bunting was one of the fortunate ones. He saw his opportunity and grasped it in a vice-like grip. When the excitement broke out Bunting was working for the Southern Pacific railroad company. The dream of his life had been to some day own a private car of his own.

In his younger days Bunting had married a fair woman of means and it is said that he made it his duty to help her exhaust the surplus of her fortune. It is related that one day, when hard pressed for ready cash, he mortgaged the Centerville home.

Bunting had long believed that some day oil would be found along the banks of the Kern River, and when the announcement was made of the discovery of petroleum on the Means farm, he made haste to secure several sections of land from the Southern Pacific Railroad Company at the rate of \$2.50 per acre, making a cash payment of fifty cents an acre, which was not an easy matter for him at that time. Bunting was lucky. In a few months he sold some of the land for \$700 an acre, and a little later knocked down more of it at \$3,500 an acre. But some of the choicest of the territory he kept and today he owns 55 per cent of the stock of the San Joaquin Oil Company besides many other holdings, and is one of the richest men of the state. He sold the land to the Monte Cristo Oil

Company, upon which several flowing wells were drilled, and the Railroad Company buying back some of the acreage at early prices.

When John Bunting awoke and found himself a Croesus he got on the car and rode over to Centerville, and the

The second thing that John Bunting did was to realize the dream of his life and buy a private car; and now Mr. and Mrs. Bunting are enjoying the evening on their car the best they know how. John wants to go to San Francisco or to Los Angeles or to Mexico in his private car, it costs him no more than when he goes alone or takes a crowd of friends. His want for Bunting cars? His dream has been realized. It does have come to him. He has got back his wife. He owns a private car. He knows how to keep his money. That is where he has got the best of Coal Oil Johnny.

### Asphalt Combination.

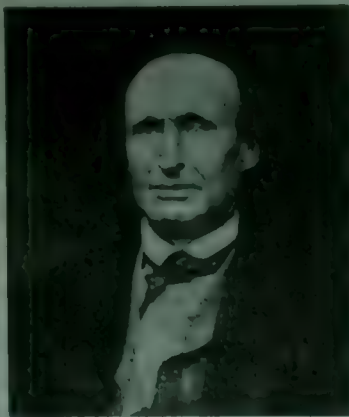
The asphalt refiners have formed an association called the Refiners' Association of Southern California, and have entered into an agreement not to sell their product below certain figures, thus avoiding unnecessary and ruinous competition. The companies in the association are the Hercules; New Franklin Refining company, Union Consolidated, Densmore-Stabler, Southern, National, Coombs, Pacific Coast and Jewett & Blodgett.

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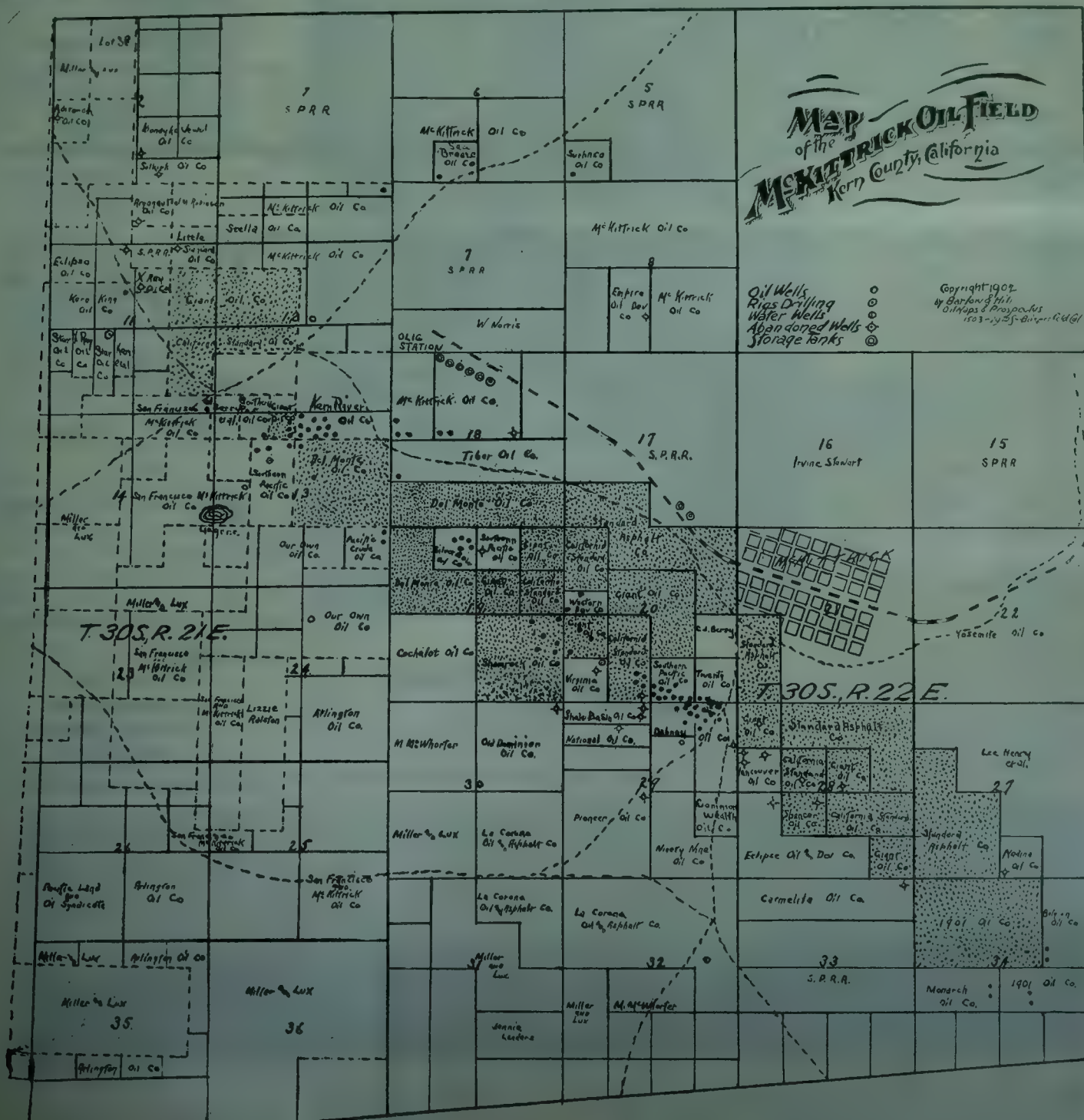
J. Elwood.

basking in the brightness of my lady's eyes, eating caramels or sipping beer, to improve the opportunities that were presented to them, and when they finally came to a realization of the true condition of affairs, they found it was too late. It is the same old story that has been written a hundred times, and

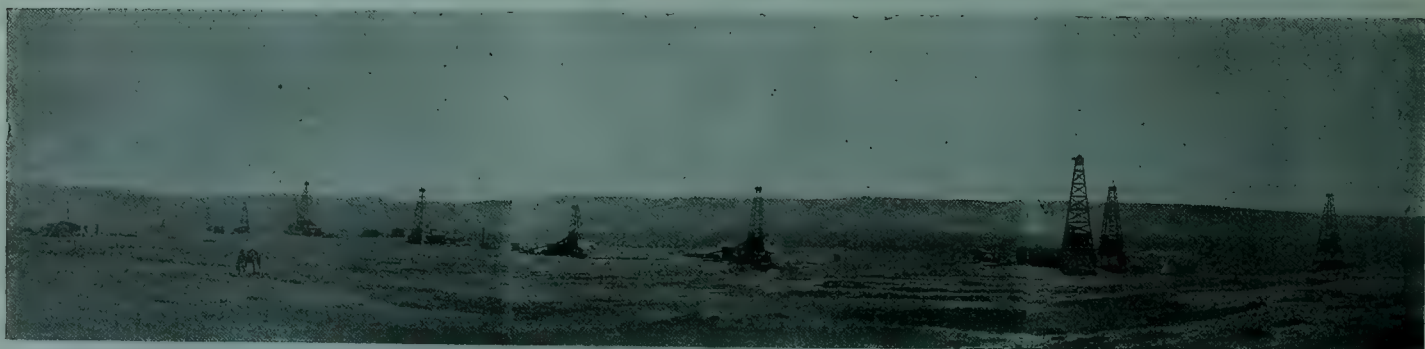
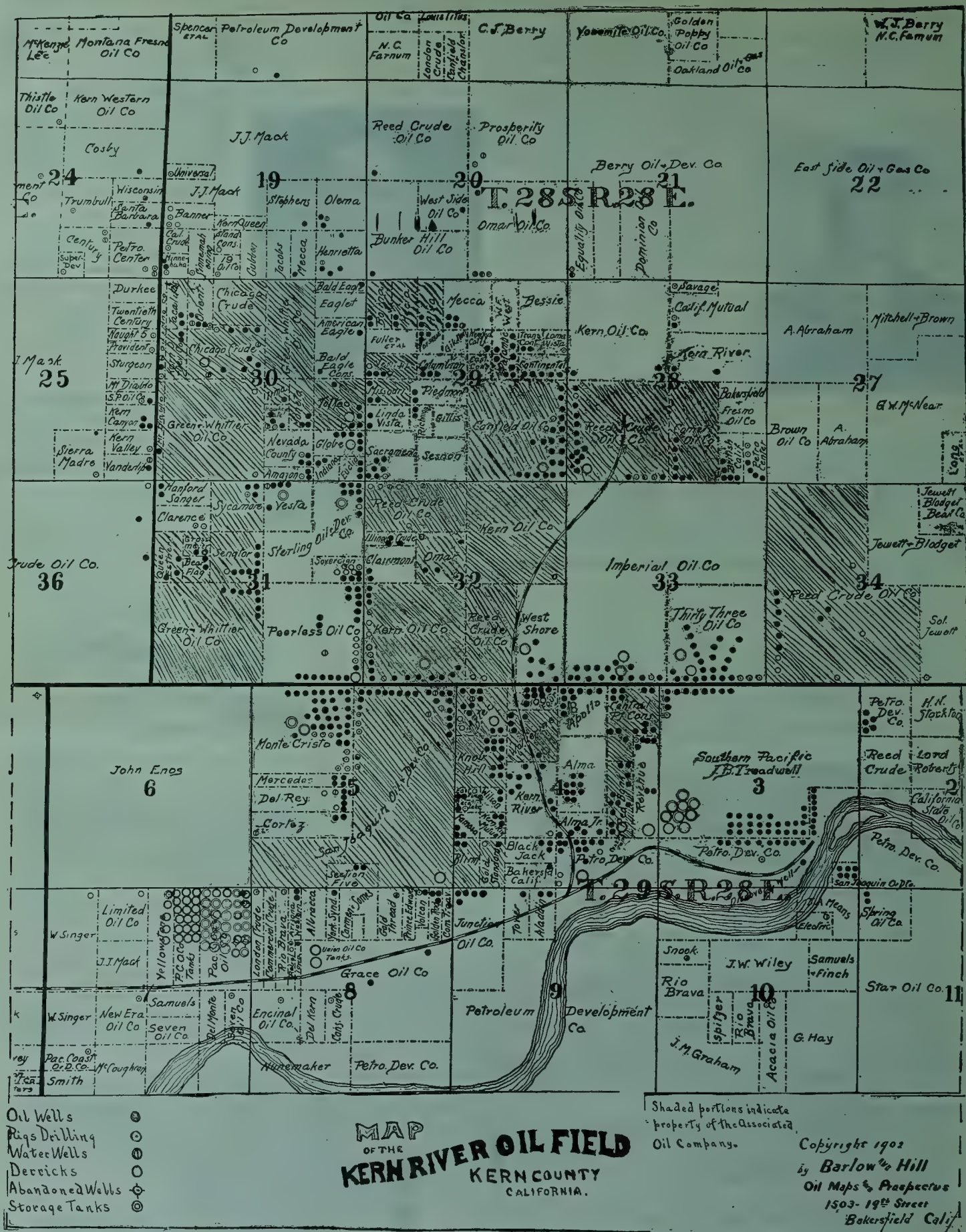


Thomas F. Baker, Founder of Bakersfield.

first thing he did was to pay off the mortgage on the farm. Mrs. Bunting was still there, and just to show his good will and to prove that there was no coolness on his part, he went down into his pocket and pulled out a roll of bills and gave them to her. She admired him for it and probably told him so.







New Development Work in the Outskirts of the Kern River Field.



# THE OIL INDUSTRY.

## Magnificent Prospects for Great Increase in the Immediate Future.

### The Demand for California Oil is Greatly Increasing, and the Present Capacity of All the Oil Fields Will Soon Be Taxed to the Utmost.

In November Dr. C. T. Deane, President of the California Petroleum Miners' Association, delivered the following address before the annual convention of the California Petroleum Miners' Association. The address was printed in the PACIFIC OIL REPORTER the week following its reading, but the demand for the paper was so great the edition was soon exhausted. The address is now reprinted in full.

Mr. President and Gentlemen of the California Miners' Association:

One year ago, when I had the honor of reading a paper on "The Oil Industry of California" before you, I said: "I present the following facts and suggestions on the oil-mining industry of the State. In it are included statistics gleaned from the most reliable sources upon the subject, which will demonstrate to you the marvelous development which has taken place during the last twelve months along the great oil belt, together with the possibilities in store, from a commercial standpoint, for an industry which already ranks as one of the most important in the State." I have now to continue the story from the time elapsed since writing the above. Without going into the scientific phase of the question, leaving that for abler hands, we will simply review the situation from a commercial standpoint.

#### DIFFERENT OIL DISTRICTS.

There are now in California 2,500 producing wells, situated in fourteen different districts, as follows: Kern River, Sunset, Midway, McKittrick, Coalinga, Santa Maria, Los Angeles, Fullerton, Puente, Whittier, Ventura, Summerland, Brea Canyon and San Mateo; of these, the chief oil-producing districts are Kern River, Sunset, McKittrick and Midway in Kern County, Coalinga in Fresno County, Fullerton in Orange County and Santa Maria, or Carreaga, in Santa Barbara County.

#### YEARLY OIL CONSUMPTION.

The total consumption of oil in California in

1900 was.....	4,000,000 barrels.
1901 ".....	8,000,000 "
1902 will be.....	12,000,000 "
1903 (Estimated).	20,000,000 "

The increase next year will be largely due to the railroads burning oil exclusively. The reason they have not done so heretofore is the delay in placing tankage, which is rather a slow process, it being

necessary to place an oil tank wherever there is now a coal bunker, about fifty miles apart along the whole line.

I have calculated very carefully the amount the railroad companies will use, and, taking a very conservative view, I cannot make



DR. C. T. DEANE.

Secretary of the California Petroleum Miners' Association.

it below 8,000,000 barrels, equal in amount to what the whole State consumed in 1901. I have had this estimate confirmed by several different experts, both railroad and oil men. One of the very best informed of these gentlemen makes it 10,000,000 barrels, which certainly places me within bounds.

The factories, railroads, electric light companies and gas companies (gas is now being made exclusively from oil) in and around San Francisco will certainly use 3,000,000 barrels, (Fire Marshal Towe informs me there are over three hundred boilers using oil daily in San Francisco), and we have left for the rest of the State 9,000,000 barrels, which is hardly enough, when you take into consideration the steam-

ers, mines, electric roads and light companies, factories, gas companies, refineries, etc., creating a demand all over this vast territory.

Railroads.....	8,000,000 bbls.
San Francisco and vicinity.....	3,000,000 "
Rest of the State.....	9,000,000 "
<b>Total.....</b>	<b>20,000,000 "</b>

Prophecy is a thankless task, but from a careful consideration of all the facts which are daily brought to my attention it is safe to conclude that before the end of 1905 we will be producing and marketing 50,000,000 barrels of oil per annum, but for the present 20,000,000 is a safe estimate.

If every well now existing was pumping to its full capacity, 16,000,000 barrels is as much as we could put into consumption. A very large number of the 2,500

will work day and night to meet this demand; oil, instead of 20 cents per barrel, will jump to 35, 40 and 50 cents.

It was only a year ago that at Beaumont, Texas, oil was going begging at 5 cents, and it is hard to get to-day at 35 cents. I am afraid that some of the corporations that have been making long contracts at almost cost price will be trying to evade them, and it will not be astonishing to see a heavy crop of lawsuits.

#### TRANSPORTATION FACILITIES.

There are 1,300 tank cars owned by the Southern Pacific and Santa Fe Railroads and the Standard Oil Company, and a few more by outside companies carrying oil in California. There should be at least 2,000 cars to do the business. The railroad is using a large number filling its own tanks, and there is frequently a shortage for commercial purposes. The California Petroleum Miners' Association has been trying for two weeks unsuccessfully to get two tank cars to send to Washington for the purpose of testing California oil in the naval furnace there for use on our national ships. Whether this condition will be relieved after the completion of the pipe-line which the Standard Oil company is now building from Kern County to Point Richmond, on the Bay of San Francisco, is problematical, as they will require a large quantity of oil for their great refinery, which is about completed at that place. It is assumed that they will be able to transport from eight to ten thousand barrels per day through the pipe. This pipeline is eight inches in diameter and 278 miles long.

The cost of transporting oil from Kern County to San Francisco is now about 40 cents, including switching, etc. I doubt very much whether a lower cost of transportation will particularly help the producer, but it certainly must the consumer, as he is the man to pay all costs of production.

#### THE LIFE OF THE WELLS.

The next thing to take into consideration is the life of the wells. The life of an oil district depends upon the number of proven acres and the depth of the oil sand. Experts contend that about 20 percent of the sand is oil, and that about 80 percent of the oil contained in the sand can be recovered; consequently, in a district where the sand is 300 feet thick, there should be a little less than a half million barrels to the acre, or a patch of 20 acres, roughly speaking, should give 8,000,000 barrels. It is claimed by many of the most careful experts that about 10,000 acres in these four districts, viz.: Kern River, Sunset, Midway and McKittrick have been proven; by proven we mean that wherever on these acres you sink a well you will most probably get oil, so that if you have 10,000 acres of land, with sand 300 feet thick, (the real fact is that on

#### PRICE OF OIL TO ADVANCE.

Instead of capped wells, and each corporation underbidding each other, trying to force the price of oil down for selfish purposes, all caps will be removed, and pumps





Lake of Oil Hastily Formed to Retain the Product of a Newly Drilled Well in Sunset.

a great deal of the above lands the sand is over 500 feet thick) we ought to have close to half a million barrels to the acre, or allowing for first and second-class land at least two thousand million barrels of oil, so there is no need of this generation worrying much whether it will last our time.

Mr. H. L. Dort, a very careful

the United States, from its discovery up to the discovery of the Kern County oil fields, is estimated by the most competent authorities at about 1,000,000,000 barrels, and this county alone may eventually produce more than this amount, and in a form, as a cheap fuel, the most necessary factor to the development of the Coast's manufactur-

Russia, for instance, which has produced 75,000,000 barrels annually for a great many years, and an expert from there, who was recently inspecting our lands, told me he considered them equal to those at Baku. We certainly ought to believe him. When asked what the lands in Baku were worth, he said \$50,000 an acre. I leave you to

21,634 long tons of the value of \$315,219, according to the report of Mr. Lewis E. Aubury, State Mineralogist. This year we ought to produce 35,000 long tons. For the purpose of competing with the foreign supply we should have a protective tariff on asphalt and lower freight transportation. At the present time the railroad charges \$11.00



Long Train of Loaded Oil Tank Cars that Daily leaves the Kern River Oil District.

and over-cautious expert in those fields, writes me as follows: "A careful consideration of the demonstrated area of these Kern County oil fields, the thickness and oil-containing qualities of the sands, justifies the belief that they contain considerably more than 1,000,000,000 barrels of oil, and possibly twice as much. The total oil production in

ing and transportation industries, and very necessary to the mining, agricultural and domestic interests, which will redound more to the general advantage of the State as a whole than any other of its natural resources."

These figures may seem large, but when you take into consideration other great oil districts, Baku, in

draw your own conclusions.

#### OIL REFINERIES.

The number of refineries reported last year was eleven; this year I have to report thirty-three. These refineries make asphalt, lubricants, distillates and coke. The amount of asphalt imported from foreign countries last year was 154,729 long tons. California produced last year

per ton to Missouri-River points.

#### OIL SUPERSEDING COAL.

Coal importations from foreign countries have dropped off nearly one half the past year, as the following letter from Mr. J. W. Harrison, coal expert, shows:

San Francisco, Cal., Nov. 8, 1902.

Dr. C. T. DEANE, Mills Building, City.

Dear Sir: The total arrivals of for-



Group of Wells in Sunset District.





Oil from One of the Flowing Wells of the California Fortune Company, in Sunset District.

eign coals from Australia, England and Wales for the first nine months of 1901, foot up 749,943 tons. The quantity imported here from the same sources for the first nine months of 1902 foot up 440,023 tons, showing a shrinkage this year, for the same period of time, of 309,920 tons.

The prices for bituminous grades, imported principally from Australia, will average about \$6.00 per long ton in cargo lots. For anthracite coal from Swansea, the average cost per cargo will be about \$7.75 per ton.

The quantity of foreign coal now afloat en route to San Francisco, is less than has been known for many years.

Yours truly,

J. W. HARRISON.

This shows that we have kept in the State \$2,169,440 which otherwise would have gone to foreign countries. The importations of domestic coal have fallen off more than 25 percent.

There is a great deal of talk about the present prosperity in San Francisco. This is largely due to the discovery of oil. Manufacturing has been encouraged by the low price of fuel oil, costing about 75 cents to the consumer, equal to \$3.00 per ton for coal.

Dividends from oil properties have amounted during the past two years to over two million dollars. This sum, together with the money retained, which would otherwise have gone out of the State for coal, has instead gone to swell the capital accumulating with the banks all over California, helping to boom the market for realty and investments, which has been so active and buoyant of late.

#### OIL IN ORE REDUCTION.

It has not yet been demonstrated that iron ore can be smelted in

commercial quantities with oil, although it has been done as a laboratory process, but there are many who believe that it is only a question of time when this will be accomplished; but even of coke, we will have a goodly supply at probably reduced figures when the great refinery of the Standard Oil company gets into operation in a few months from now, as I understand, they will not make asphaltum, but coke.

#### LIQUID FUEL FOR STEAMERS.

It might be well to mention here the successful use of oil as a fuel for marine boilers. There are 200 boilers now using oil in this State. The steamers of the Oceanic Steamship Company are being altered, as the Mariposa running to Tahiti has proven such a success. She is now on her fifth trip, and I understand that the owners save in the neighborhood of \$200 per day. The Pacific Mail is also inquiring into the advisability of using oil on its steamers. One important fact has been proven by the use of oil, and that is increased speed is obtained of almost a knot an hour. This is accounted for by the fact that the heat is more continuous and regular for the reason that the furnace doors are not being continually opened for the purpose of keeping up the fires. You hear so much said about oil fuel deteriorating the fired parts of boilers that we have made careful inquiry on the subject from Mr. John K. Bulger, United States Local Inspector of Boilers for this coast, and he re-

ports that the boilers of the steamer Pasadena, inspected by him in August, 1902, and which have been burning oil for the past eleven years, were in perfect condition, also that the boilers of the George Loomis, which have been burning oil for the past eight years, and which were inspected in November, 1902, were the same, there being no signs of crystallization showing on any of the fired parts.

Lieutenant Ward P. Winchell, United States Navy, in his report to the Navy Department in regard to the success attending the use of oil for fuel on the first trans-Pacific trip of the steamer Mariposa to Tahiti, said: "The most careful inspection at Tahiti failed to show any bad effect of the flame upon the boilers."

As to the safety of burning oil in marine boilers we have simply to say that the insurance companies have not raised their rates on oil-burning steamers, which answers that question thoroughly.

#### OIL ON ROADS.

The dusty-road nuisance will be a thing of the past in a few years, due to sprinkling with oil, and railroad travel in this State will be made much more agreeable. The general manager of the Santa Fe system, Mr. A. G. Wells, informs me that they have oiled 666.5 miles of their roadbed to their great satisfaction, and we are reliably informed, although not officially, that the Southern Pacific have oiled over three hundred miles of theirs. The several counties in the State are oiling their roads, and find it 50 percent cheaper than water. As a local object lesson we have the drives in our beautiful Golden Gate Park, which have been oiled now for over two years, and the public are enthusiastic as to the result.

There are about 5,000 barrels of

oil a day coming to San Francisco by rail. Reliable statistics of what comes by sea are not obtainable.

#### OIL IN MANUFACTURING INDUSTRIES.

Another point upon which I wish to dwell is the increase which has taken place of late in local manufacturing industries. The 12,000,000 barrels of oil which will be consumed this year represent in fact 3,000,000 tons of coal. This is fully one sixth more than the total amount of coal ever before consumed annually in this State. This can be ascribed solely to the enlargement of the manufacturing interests brought about by the decline in the cost of fuel, and, had it not been for the discovery of oil in California, manufacturers would never have been able to branch out as they have done the past two years, in a way which not only enables them to hold their own with their Eastern rivals, but to enter the field as competitors.

#### INVESTMENT OF FOREIGN CAPITAL.

There are a number of foreign syndicates quietly buying our oil lands, while our own rich men hesitate to make the same investments. An English gentleman, the agent of London capitalists, told me they were selling five dollars' worth for 25 cents down in Kern. There are a number of English, French and Belgian companies now in existence, which few people in this country ever hear of, and two of these companies that I know of are paying dividends. The oil business is so new to us that our business men do not as yet appreciate its importance; when they do, they will have to pay much larger prices for land than they can get it for today. Proven oil lands are selling from \$500 to \$5,000 an acre. These lands could have been bought two or three years ago readily at \$10 an acre. In a few years they will sell for three times the price they are selling for now.

#### COST OF PUMPING.

The cost of pumping oil varies according to the number of wells. A large number, say ten or twenty, ought not to cost over 1.5 or 2 cents per barrel (42 gallons). I know of one exceedingly well-managed company which has reduced the cost to 1 cent a barrel.

#### DEPTH AND COST OF THE WELLS.

The wells in Kern River, Sunset, Midway and McKittrick average from 900 to 1,200 feet in depth, and ought to cost, barring accidents, about \$5,000 each to sink. This does not include the rig.

#### CONSERVATIVE FIGURES.

The above is briefly an account of the oil lands of California from a commercial point of view. All the figures are absolutely conservative and the California Petroleum officially. As I said last year, the California Petroleum Miners' Association will vouch for them. This Association feels that in making statements of the kind quasi-public as they are in character, they should be as correct as a government official report, free from misstatements or exaggerations, calculated to mislead. I have, therefore, been particularly careful in collating facts, and when it was possible have had them verified Miners' Association desires to be free from any suspicion of attempting to boom an industry which is abundantly able to stand on its own merits.





One of the Gushers on the Santa Fe Lease, Fullerton Field.

## FULLERTON OIL FIELDS.

**A District That Produces a High-Grade Refining Oil.**

**The Total Output Now Exceeds 100,000 Barrels a Month, and Is Rapidly Increasing.—The Product in Great Demand at High Prices.**

Some seventeen years ago the first oil well ever drilled in southern California was put down in the Fullerton field by the Puente Oil company on its own lease—today one of the best producers of high gravity oil in the State. For many years work on this lease went on quietly, until 1895 a contract was made with the Chino Beet Sugar company for 80,000 barrels of oil the first year.

Since then the output from this field has greatly increased. A 4-inch pipe-line was at once laid from the wells to Chino, a distance of over 15 miles. Oil was then worth from 75 cents to \$1 a barrel, but the same gravity oil from the Puente company's lease now is worth \$1.75 a barrel, as it runs up to as high as 37° B., gravity, and most all of it is now sold for refining purposes.

The cost of drilling and equipping a well here or anywhere in California, while greater than in the eastern fields, is about uniform in all the California territory. It is estimated at from \$2,500 up for an average well of from 800 to 1,200 feet. The wages here vary slightly, but as a rule they are about 20 percent higher than in the East.

The next oil field, which proved to be a heavy producer, was opened in the Fullerton field by the Santa Fe railroad company on its own territory, an extensive tract northeast of town, and about five miles east of the Puente company's wells.

The Santa Fe had a large production within a year or two after it began development work here, and for many years consumed all the oil from its Fullerton fields, and more, too; but the past two years it has been selling a good portion of its immense output for refining purposes at \$1.75 a barrel, and purchasing a lot of cheap oil in Bakersfield for its engines, as low gravity oil from that field, mixed with some of the Fullerton

oil, gives just as good satisfaction as oil of a much higher gravity. The Santa Fe now has over 30 wells, all good producers, on the pump here.

Soon after the Santa Fe had its work well under way, the Graham & Loftus company entered the field on an adjoining lease, and that company has since cleaned up something like \$300,000 in profits during the past few years. This company opened up some of the best spouters in the Fullerton field, some of them going as high as 3,000 barrels a day. This company is now pumping a large number of wells, getting high gravity oil from all of them.

Then followed the Columbia Oil company, the Fullerton Consolidated company, the Fullerton Oil company, the Olinda Oil company—all of which are in successful operation—and a number of smaller companies near the Santa Fe's wells.

The next territory opened in the Fullerton field was in the Brea canyon hills, directly north of Fullerton, and about half way between the Puente Oil company



Brea Canyon Oil Company's Well, Fullerton Field.



and Santa Fe company leases, by the Brea Canyon Oil company and the Union Oil company. The Brea Canyon Oil company opened up the biggest gusher ever tapped in any Fullerton territory, one of its gushers for a short time spouting at the rate of 24,000 barrels a day. One of the gushers on this company's lease has paid net \$142,000 during the past ten months, and it is believed this is the most wonderful well ever opened in any California field.

The Union Oil company has also been very successful with its wells in this canyon, and, like the Brea Canyon company, has a large number of wells on the pump. The Union company has just installed a rotary drill which has a capacity of 3,000 feet in depth, and the company is now going after very high gravity oil with the new rotary drill which is operated by two experts from the Pennsylvania fields.

A goodly part of the Fullerton oil is conveyed to San Pedro by the Union Oil company's 4-inch pipe-line, a distance of 30 miles, and from that point the Union company ships to San Francisco for refining and other purposes. The Union is the heaviest purchaser of oil in the Fullerton field, though the Santa Fe is still buying large quantities of oil here in addition to its own output, on account of its ten-year contract with one or two companies not having expired, and which will yet run about three years. The Santa Fe

moves its oil out, also the product of other companies, by a branch railroad built direct to the wells from its main line.

On account of so much of the Fullerton oil being refined and of the increasing output on the railroads and for oiling public highways there is a very strong demand here for every barrel of oil that can be produced and the market price is now higher than ever before in the history of the Fullerton field.

There is much development work going on in the entire Fullerton field twenty-four hours every day, and there are now nearly thirty new wells being drilled and some ten or twelve rigs in course of construction for more new wells. One of the old-time companies here has found good indications of white oil, which is worth several dollars a barrel, on undeveloped territory a few miles north of the Santa Fe company's wells, and is now making arrangements for water, etc., to begin development work on the property. Every company operating in the Fullerton field is developing its property and many more new wells will be brought in within the next sixty days.

The Fullerton field is now producing monthly nearly 125,000 barrels of oil, most all of which is high gravity and it is believed the output will run up to between 175,000 and 200,000 barrels monthly within the next year. The output here now is as follows

by the old established companies:

Name.	Barrels.
Brea Canyon Oil Co.	20,000
Santa Fe Railway Co.	40,000
Union Oil Co.	6,000
Columbia Oil Co.	5,500
Graham & Loftus Oil Co.	11,000
Olinda Oil Co.	1,000
Fullerton Oil Co.	4,000
Fullerton Consolidated Oil Co.	6,000

Name.	Barrels.
Menges Oil Co.	2,000
Puente Oil Co.	12,000

Total output per month.....107,000

The heavy gusher on the Brea Canyon Oil company's lease has been gushing many months under a pressure of 190 pounds

## HERE'S A CHANCE FOR A DIVIDEND!

We want you to write to us for particulars about buying or leasing for a term of years on royalty, some proven land in the

## McKittrick Oil District

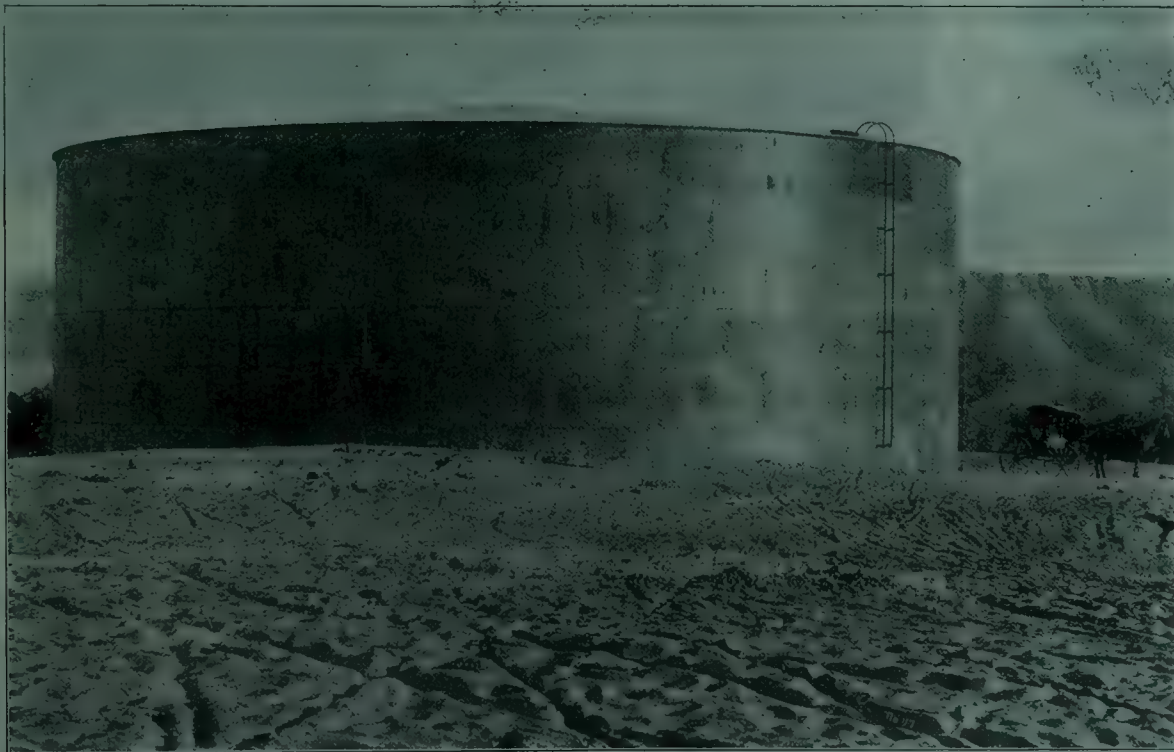
Any acreage from ten to one hundred and sixty acres, the latter to include fully equipped camp and producing well, absolutely no incumbrance.

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A Thirty-Seven-Thousand-Barrel Tank, Kern River—Courtesy of the Potomac Oil Company.

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## PETROLEUM INDICATIONS.

### California Abounds in Evidence of the Presence of Crude Petroleum.

**These Evidences Are Very Plain, and Can Be Discerned Even More Plainly Than Those Indicating the Presence of Valuable Minerals.**

A. S. COOPER, M. E.

The surface indications of the presence of oil beneath the surface in the States of Pennsylvania, Ohio, Indiana and West Virginia are very meagre.

It is different in California.

Owing to the high angles at which the strata of the coast ranges are uplifted and bent, anticlinal and other structures can be plainly seen and studied. Asphaltum, bituminized sands and shales, oil seepages, gas exhalations, also the evidences of metamorphic and water action that usually are associated with bituminous deposits,



A. S. Cooper, M. E.

burned and leached shales, gypsiferous deposits, mineral springs, the evidences of former mineral springs—all of these indications of the presence of bitumen are scattered throughout the coast ranges and the foot hills of the Sierra Nevada in great profusion. Therefore a geologist can locate an oil field with far more certainty in California than in the States mentioned above.

The surface indications of petroleum are equally as valuable in determining the accumulations of petroleum underground as the sur-

face indications of precious and economical minerals are valuable in determining the position and presence of these minerals under the ground. The time is not very distant that in many instances structure alone will govern the location of a well irrespective of any other surface indication. In a district where the rocks are impregnated with bitumen, anticlines should contain petro-

leum. In California, as well as elsewhere, anticlinal structure exerts a great influence on the accumulation of petroleum oil; especially is this true where the formation lies below the line of permanent water and the dips of the anticline are steep. Petroleum oil being buoyant in water, its inclination is to ascend through porous strata, encased in impervious strata. The porous strata act as conduits to convey the petroleum oil towards the axis and apex of the anticline.

California usually runs parallel with the mountain ranges, and often form the summit of the mountains in the southern part of the State, where denudation has not been very great during a long epoch of time. Many times auriferous gravel beds are found covered with alluvium, which do not contain gold. This alluvial cover is from a few feet to several hundred feet in thickness. Beds of rivers filled with gravel have been located, and attempts made to turn the



Geological Formation at the Modelo Wells, Ventura County.

face indications of precious and economical minerals are valuable in determining the position and presence of these minerals under the ground.

The time is not very distant that in many instances structure alone will govern the location of a well irrespective of any other surface indication.

In a district where the rocks are impregnated with bitumen, anticlines should contain petro-

Anticlinal structure can be ascertained from exposures and the strike of the same with greater certainty than the course of a hidden stream covered with lava. The direction of an anticline is usually straight, and this straightness may be maintained for a long distance, whereas the beds of these hidden streams descending from the flanks of the Sierra Nevada are usually sinuous. Then again the axis of an anticline in

river from its bed so that bed-rock could be reached, and the gold upon the same obtained. Frequently these attempts have been unsuccessful after the expenditure of many thousands of dollars. Lands containing mines described above have been located and patented under the mining laws of the United States. The surface indications of the presence of these placers is no better than the surface indications of the presence



Anticline at Point Arena, Mendocino County.—A, Bituminous Sand Bed. B, Axis of Anticline.



of subterranean porous beds containing petroleum oil.

Quartz is a good indication of the presence of gold; asphaltum and bituminized sands are better indications of the presence of petroleum, than quartz is of silver or gold.

For instance the locations of old stream beds containing gold are covered by a capping of volcanic material, sometimes hundreds of feet in thickness. These subterranean deposits are reached by tunnels, the position of these stream beds being conjectured by exposures where they have not been covered by volcanic material, or where the volcanic material has been eroded. The general course of these hidden streams is toward the centre of the Sacramento valley. Other geological conditions that are present assist in giving their position. There is no certainty that when found these old stream beds can be profitably worked.

Many copper deposits in California are indicated on the surface by a deposit of iron, containing but a slight amount of copper, the copper having been leached from the iron by meteoric waters. Below this iron cap, carbonates of copper exist and further below, when under the line of permanent water, pyrites containing copper are obtained.

Asphaltum, being the residue of petroleum after the volatile parts have evaporated, is as conclusive a proof as to the existence of petroleum in a formation, as the iron cap is a proof as to the existence of copper. The impregnation of pervious rocks by bitumen is an indication of the presence of petroleum as the iron cap is of copper.

It must be remembered that in case oil is obtained, the reward is so great in comparison with the usual investment that a prudent man is justified in making an attempt to secure an oil well in land where but little surface indications exist.

A person can invest in oil property, judging its value by surface indications, with the same prudence that can be exercised in investing in property having the surface indications of minerals other than petroleum.

Many lode, placer, drift, and hydraulic claims have been located and patented that have not paid for working, and never will.

As many animal fossils exist in the synclines as in the anticlines; notwithstanding this, but little bituminized shale is found in the synclines, a rock from which petroleum is not removed by buoyancy of oil in water. If animal fossils were the source from which petroleum is derived, all the unaltered rocks of the coast ranges would contain a greater or less amount of bitumen. Consequently fossils of any particular age are not indicative of the presence of petroleum.

The unaltered rocks of the coast ranges of California only extend to the Cretaceous period. All of the Tertiary age contains petroleum oil, also the Cretaceous. Nothing has been shown to prove that the petroleum contained in

these rocks is indigenous. Even if it is true (although there is no reason to believe that it is) that petroleum oil is derived from organic animal life, there is no reason to believe that animal life of the Cretaceous age has not contributed as much oil as the animal life of the Tertiary period. From exposures as many animal fossil remains exist in the Cretaceous as the Tertiary.

No connection between animal fossil remains and petroleum oil has ever been shown.

Therefore the geological age of a formation is not indicative of the presence of bitumen.

### Steamers Burning Oil.

Permits have been granted by the United States Inspector of Steam Boilers at San Francisco to use oil on the following steam vessels:

NAME.	TONNAGE.
Sea King.....	181
Sea Prince.....	58
Sea Rover.....	80
Rescue.....	172
Mariposa.....	3,158
Alameda.....	3,158
Enterprise.....	2,675
Newark.....	1,783
Encinal.....	2,014
Berkeley.....	1,945
Oakland.....	1,672
Transit.....	1,509
Enterprise.....	1,545
Thoroughfare.....	1,012
El Capitan.....	982



View of an Oil Well in the Redwoods of Santa Cruz County.

NAME.	TONNAGE.	NAME.	TONNAGE.
Piedmont.....	1,854	San Joaquin No. 3.....	320
Richmond.....	135	" " 4.....	365
San Pablo.....	1,584	Dover.....	244
Warrior.....	122	Varina.....	230
Falcon.....	117	A. H. Payson.....	150
Hermosa.....	454	Alton.....	106
George Loomis.....	601	Hazel.....	80
Tamalpais.....	1,554	Red Bluff.....	246
Pasadena.....	300	Arctic.....	392
Olympic.....	450	Dispatch.....	698
Brunswick.....	450	Del Norte.....	450
Santa Monica.....	497	Cazadero.....	1,500
G. C. Lindauer.....	459	President.....	564
Alliance.....	679	Marshfield.....	388
South Bay.....	600	Sarah.....	1,211
Albion River.....	450	Billa.....	370
Prentiss.....	450	Louise.....	717
Wizard.....	139	Susie.....	1,211
Hercules.....	96	Leah.....	477
A. C. Freese.....	205	El Capitan.....	1,100
St. Helena.....	205	South Bay.....	438
General Frisbie.....	544	Columbia.....	2,721
T. C. Walker.....	786	Geo. W. Elder.....	1,729
J. D. Peters.....	884	Iaqua.....	712
Mary Garratt.....	810	Napa City.....	178
H. J. Corcoran.....	682	Alcatraz.....	255
H. E. Wright.....	562	Eagle.....	2
Brooklyn.....	674	Asuncion.....	2,196
Garden City.....	1,080	Eureka.....	484
Valletta.....	479	Searchlight.....	100
Apache.....	938	Tiger.....	250
Modoc.....	929	No Wonder.....	269
Monticello.....	226	Herman.....	456
Centralia.....	800	Charles R. Spencer.....	474
Nevadan.....	4,408	Redondo.....	679
Nebraskan.....	4,408	Kehani.....	118
St. Vallier.....	60	Del Norte.....	450
Comet.....	50	Rosecrans.....	2,700
Charles Counselman.....	123	Dallas City.....	446
Fulton.....	386	Neponset.....	224
Priscilla.....	51	Regulator.....	508
Vulcan.....	327	San Pedro.....	452
Elkkader.....	31	Aberdeen.....	566
Irwin.....	90	Chehalis.....	663
Hannah.....	1,211	Alcatraz.....	450
Eureka of Seattle.....	3,015	Alcatraz.....	450
Flora.....	185	Potrero.....	500
Jacinto.....	235		
San Joaquin No. 2.....	242		
		Total, 111.....	88,981



## CRUDE OIL IN SMELTING.

### Ideal Conditions Prevailing Where Liquid Fuel Is Used.

#### Practical and Extended Use of Crude Oil Demonstrates Its Value and Economy—Care Should Be Exercised in the Choice of Oil.

The following valuable and interesting paper was read by Alfred Von der Ropp, the superintendent of the Selby Smelting company, at the eleventh annual convention of the California Miners' Association held in November in San Francisco.

Mr. President, and Gentlemen of the California Miners' Association:

Through your secretary, Mr. E. Benjamin, I received a request to

generator. Another way of getting at the comparative values of liquid fuel and coal is the following: In a large matting furnace of the reverberatory type, it is considered that one ton of coal should smelt about three and one-half tons of ore. I find that in the same matting furnace at Selby, I can smelt one ton of ore with one barrel of oil; this would give us three and one-half barrels of oil to three and one-half tons of

14 lead furnaces with 14 burners; 13 zinc retorts, with 13 burners; 3 cupel furnaces with 3 burners; 1 antimony furnace, with 1 burner; 1 furnace for melting fine silver, with 1 burner. Total, 47.

In all of these furnaces, the use of crude oil has brought about a saving of from forty to sixty percent in the cost of fuel over coal. And this does not represent all the benefit to be derived from the use of liquid fuel in metallurgical establishments.

Let me quote you a few simple chemical reactions that you all are more or less familiar with, and which are of vital importance to all metallurgical institutions.

In the process of oxidizing sulphide ores, commonly called roasting, or desulphurizing, it is necessary that the atmosphere in the roasting furnace should contain as much free oxygen as possible to enable the sulphur in the raw material to oxidize or burn off in

a second. This means that we can crowd a roasting furnace using oil far beyond the capacity of a furnace using coal, and still we can produce a good end roast with the same percent of sulphur remaining. This means that we reduce the cost of fuel, labor, and repairs per ton of ore treated. In all metallurgical furnaces where the aim is to oxidize, these same benefits are to be derived from the use of liquid fuel. I quote you, for instance, the cupel furnace, where the lead is oxidized to litharge, leaving the silver and gold on the hearth, as dore silver.

But let me mention the matting furnace, of the reverberatory type. In this furnace the roasted ore is subjected to a white heat to produce a quick sintering and melting down of the charge. The aim in this furnace is to produce, first: "a copper-iron matte, which acts as an accumulator for the precious metals," and, secondly, "a slag



General View of the Kern River Oil Field.

prepare a short paper "On the Use of Crude Oil in Smelting." This I have endeavored to do, confining myself entirely to the practical side of the subject, and leaving the discussion of heat units, chemical composition of liquid fuels, combustion-gases, etc., to our more scientific friends—the professors of the universities and technical schools.

Fuel oil for the generation of steam is not my subject, and you all are no doubt familiar with this problem. However, let me state to you, that at the Selby Smelting and Lead company's works, we use liquid fuel exclusively for the generation of steam—in Stirling water tube boilers, rated at 250 and 290 horse-power, respectively. We burn an oil of from 26° to 27° gravity, and evaporate, per pound of oil, 14½ to 15 pounds of water, from and at 212°. This gives you a basis to figure the comparative value of oil with coal as a steam

ore; or, in other words, three and one-half barrels of oil are equal to one ton of coal. One ton of good coal is worth to-day, in San Francisco, we will say, \$6. This means that one barrel of oil at \$1.71, or three and one-half barrels at \$6, would be equal in effective value to one ton of coal at \$6; and you all know that good fuel oil can be bought to-day in San Francisco for one-half of \$1.71 per barrel, and even less. In other words you can save 50 percent and more by the use of liquid fuel instead of coal under the prevailing conditions and prices for coal and oil.

I wish to mention right now that I am not interested in any oil wells or oil stocks, and am not attempting to boom liquid fuel.

The following metallurgical furnaces use crude oil at our works at Selby: 4 roasting furnaces, with a total of 11 burners; 1 matting furnace, with burners; 1 copper furnace, with 1 burner; 14

the shape of sulphur di-oxide ( $\text{SO}_2$ ), and sulphur tri-oxide ( $\text{SO}_3$ ). In using coal as fuel it is impossible to maintain this oxidizing atmosphere all the time, because, every time that fresh fuel is fed to the firebox, black gases can be seen to fill the interior of the furnace, and during this period of incomplete combustion the process of roasting, or oxidizing, is absolutely at a standstill. What happens? A certain amount of fuel and time are wasted, and nothing is accomplished.

Now look at the ideal conditions prevailing in the roasting furnace when liquid fuel is used. Once the flame is regulated, by properly adjusting the oil and steam inlets, we have a clear flame, with not a trace of soot in the roasting chamber; and this ideal condition continues for twenty-four hours per day, enabling the sulphur in the ores to combine with the oxygen in the air during every fraction of

which is formed from the earthy components of the ore." As matte is a compound of sulphur and heavy metals, (mainly copper sulphide and iron sulphide) in fixed proportions, it is self-evident that the percent of copper in the matte depends on the amount of sulphur remaining in the charge.

Suppose now that we use coal as fuel in the matting furnace, we will have a reducing atmosphere whenever the fireman gets busy and fills the grate with fresh fuel, thus producing an incomplete combustion for a certain length of time. During this period no sulphur can be oxidized by the oxygen of the air. With oil we have an oxidizing atmosphere during every second, and consequently we find that we produce a higher grade copper matte in a furnace using liquid fuel than we can possibly produce in a furnace using coal. On the other hand, if it should be desirable to have a re



ducing atmosphere in metallurgical work, it is easy to change from an oxidizing atmosphere to a reducing one in an instant, by either choking the air inlet to the furnace, or increasing the flow of oil to the burner. This leads to the oil burner proper.

There have probably been two thousand patents granted for oil-burners, each claiming remarkable, and even most surprising, results. For instance: some inventors claim that their burners will generate hydrogen. When asked to explain this, and how they expect to benefit the kind people, by this most remarkable reaction, the usual answer is, "the heat decomposes the steam into oxygen and hydrogen; and there you are." In their eagerness to praise their burners they forget that plus and minus balance fairly well in nature, and that it would take exactly the same amount of heat to disassociate water into its component parts, namely, hydrogen and oxygen, as would be generated by combining or burning the oxygen and hydrogen so generated, minus a liberal amount of heat wasted by radiation.

When deciding to use liquid fuel, it is necessary to decide whether steam or compressed air shall be used as an atomizer. Let me call your attention to the fact that the use of compressed air necessitates a compressor, and an apparatus for preheating the compressed air. This latter appendix is very much to be recommended, because as you know, in allowing compressed air to expand the temperature of the surrounding air will be lowered. A cold or nearly freezing temperature will not be beneficial in atomizing liquid fuel preparatory to obtaining complete combustion. Steam, on the other hand, carries a certain amount of heat to the oil, and liquifies and even gasifies the same. Of course, all this pertains to plants on terra firma. On board a steamer it is different, where water has to be carried along, or sea water is to be distilled, in which case I should prefer to use air under pressure.

As the dimensions of metallurgical furnaces are variable ones, you will readily understand that we need flames of many different sizes for our metallurgical tools. For instance, at Selby, the extreme lengths of flames used are eight inches and six feet. In the zinc retorts, which are our smallest furnaces, we need a flame of eight inches. In the large matting furnace, 35'x16' in the clear, we need a flame of six feet or even more in length. The burner has to be adapted to the furnace, and to the work to be performed. Hence you will find at metallurgical establishments a great variety of burners, or at least a great variety of sizes of burners, and I know of no better all-around bur-

ner than the one formed of two concentric pipes, the smaller one being the oil pipe, and the larger one the steam carrier. By this arrangement the oil pipe is steam jacketed, and the temperature of the oil is raised to such a degree that its fluidity is very much increased, and part of the lighter oils become gases. All this tends to break up more or less the viscous oil into minute particles, which ignite readily when brought in contact with the oxygen of the surrounding atmosphere.

gravity corresponding to the one contracted for.

When making a contract for liquid fuel insist that nowhere in the contract shall appear the words "fuel oil," but call for crude petroleum of a certain gravity, and insist, if possible, on getting the crude petroleum from wells producing very near the same gravity of oil. Suppose you contract for "fuel oil" of, say, 20° gravity; (and not for "crude petroleum") it is possible, and also probable, that you will receive a fuel oil of 20°

and on top you will find the light oil, or distillate. These lumps, which the refiners term B. S., (I refer you to them for an explanation of this, to me an entirely new and unknown chemical formula), will enter your pipes and burners, and will stop your oil system up very effectively. Another point that should be observed in making contracts for crude petroleum is the percentage of moisture and grit allowed in the oil. Two percent is a liberal allowance to be made to the seller, and if the crude



Screwing together Lengths of Casing for a Kern County Oil Well.

The following advice to future users of oil as fuel may not be amiss in concluding this paper:

First. By all means engage an expert to install your plant, and do not experiment yourselves, as it costs money to do so.

Secondly. Do not use a mixture of different gravity oils.

Thirdly. Do not use a mixture of heavy residues with light oils from the oil refineries, as this mixture will not remain mixed. Oil refineries are very fond of mixing heavy residues with some light oils, thus producing an oil of the

gravity, but you will not always receive crude petroleum at 20° gravity. The refiner has a perfect right by this contract for "fuel oil" and not "crude petroleum," to send you a mixture of residuum of, say, 10° gravity and a distillate of crude oil of 35° gravity in such proportions that the mixture will show 20° gravity. This mixture will be pumped into your storage tanks, and in a very short time the heavy and light ingredients will separate. At the bottom of your storage tank you will find lumps as big as 10" to 12" in diameter;

oil contains more than two percent water and dirt a proportionate deduction should be made from the oil received.

A very simple test for the determination of the grit and water in crude oil is the following: Place in a graduated tube or cubic centimeter of the oil to be tested; add to this or cubic centimeter of gasoline; shake this mixture well, and let it remain in a fairly warm place for twenty-four hours. By that time the water and sand, being heavier than the gasoline and crude oil, will have settled to the



bottom. By counting the cubic centimeters that represent the water and grit, which are easy to be distinguished from the oil, you have the percentage without any figuring.

During the last few years I have been repeatedly approached by parties asking me why I do not use oil in the blast furnace, and the only answer I can give them is the following: Solid carbon plays a very important role, especially in the upper level of the blast furnace shaft. Its function, especially with the fine ores, is largely to limber up the charge and allow the flow of gases to penetrate the charge evenly; besides incandescent carbon has certain functions to perform in the blast furnace, which are of a chemical nature, and which need not be discussed in this paper. If coke or charcoal should be entirely replaced by oil in the blast furnace, the blast furnace charge would very likely become too dense to allow the combustion gases to escape freely. Besides, it seems to me, there would be considerable danger from explosions if oil should be used as a fuel in blast furnaces. However, I think it may be possible to replace part of the solid carbon fuel with liquid fuel, but am not prepared to state at this time what percentage of liquid fuel could be used, or what mechanical arrangements should be introduced for the use of liquid fuel in the blast furnaces.

ALFRED VON DER ROPP,  
Supt. Selby S. & L. Co.

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## **UNION OIL COMPANY.**

### **A California Corporation That Has Achieved Pronounced Success.**

#### **Controls 200,000 Acres of Proven Oil Land, Has 300 Miles of Pipe-Line, Operates Two Refineries, and Has a Fleet of Tank Vessels and Steamers.**

The Union Oil company has produced, bought, sold, refined and transported millions of barrels of crude petroleum.

For years it has been the main oil operator in the State. It is the oldest company in the State, and since its organization it has operated extensively in every field in California where oil has been de-

veloped sufficiently for commercial and refining purposes. It is a California corporation, managed by men brought up in the business from its earliest history in the State, and California has furnished the capital on which it has been operated. It is a California concern in

the fullest sense of the term, and its growth has kept pace with the development of the State's oil industry. Starting in a comparatively small way it has grown as the oil industry has grown until it owns oil lands, pipe-lines, storage facilities, tank cars, barges, steamers and sailing vessels; the total value of all of which exceeds the



The Union Oil Company's 55,000-Barrel Tank at Kikei, Hawaiian Islands.

veloped sufficiently for commercial and refining purposes.

It is a California corporation, managed by men brought up in the business from its earliest history in the State, and California has furnished the capital on which it has been operated.

It is a California concern in

vast sum of \$50,000,000.

It has secured land in the proven oil districts of the State comprising over 200,000 acres. This land is located in the choicest portions of the Los Angeles, Orange, Ventura, Kern, Fresno, San Benito and other fields.

It has constructed over 280

miles of pipe-line running from the oil fields of Ventura and Los Angeles counties to the sea-ports of Ventura and San Pedro, where it has extensive tankage facilities and wharfage for its lines of tank steamers and sailing vessels. It has extensive pipe-lines at Coalinga and at Bakersfield, where it also has great storage tanks. It owns a great number of tank cars which number it is constantly increasing, so that from these interior points of oil production it cannot suffer from shortage of tank cars as those do who have not their own cars.

It has steel tankage for over 1,000,000 barrels, and its reservoirs will hold 4,000,000 barrels, which will soon be increased to 5,000,000 barrels.

There is a strong probability that the Union Oil company will also add to its pipe-lines by the building of, perhaps, two other lines from the interior to the sea—one from Bakersfield through the Sunset fields to the coast, and another from Coalinga through the coming great Fresno-San Benito district to the coast at Moss Landing. In this respect the company is non-committal, and will neither affirm or deny reports as to its intentions in regard to these lines. It is known, however, that the company has sought contracts with producers of such a nature as would indicate it had in view in the not distant future pipe-line enterprises of great magnitude, which, when carried out, would place oil districts that are now suffering from and retarded by insufficient rail transportation facilities in a position to ship their products cheaply, quickly, and in large quantities. The giant strides taken by the company in the last two years warrant the belief that no enterprise is too great or too costly to be undertaken when the



The Union Oil Company's Barkentine Fullerton.



company once makes up its mind that such an enterprise would facilitate its vast and rapidly-growing business, and place it in a position to handle more advantageously and cheaply the rapidly-growing oil output and the correspondingly increasing demand.

The company is not only a large purchaser of oil in various districts, but is in itself a large and rapidly-increasing producer.

In the oil fields of Los Angeles, Fullerton, Ventura, Kern and elsewhere it has over 300 producing wells. It has a large number of rigs constantly at work in all the proven fields steadily and systematically drilling new wells, and, in the outside districts, where the geological conditions point to a possibly yet undiscovered supply of oil, its drills are at work slowly but surely proving the truth or falsity of Nature's story, written on the rocky hill-sides.

#### REFINERIES.

Besides selling crude oil to others, it is a vast consumer of its own product.

At Oleum, on the shores of San Francisco bay, in Contra Costa county, the Union has a refinery able now to refine over 1,000 barrels a day of crude oil, and having this capacity constantly enlarged, as the demand for its product increases. This refinery uses only the light oil from Ventura county, as this is

better adapted for refining, for illuminating and kindred purposes.

At Bakersfield, within the last three months, another refinery has just been completed by the Union for refining the heavy Bakersfield oil for asphalt. This refinery has also a capacity of 1,000 barrels of crude daily, and, from its warehouses are being shipped thousands of tons of first-quality asphalt to be used in making the streets and sidewalks of eastern cities, which have just begun to realize the value and utility of California asphalt for these purposes, and which from now on will look to the Pacific coast for the product of petroleum, which is to take the place of cobblestones, basalt blocks and macadam in the cities of the East and middle West.

In introducing its asphalt product the Union Oil company is using every endeavor to show the superiority of California asphalt over all other pavement, and the success it is meeting in this regard means a great and rapidly-increasing output of crude petroleum, which will add much to the returns received by the California oil producers.

#### OIL FOR GAS-MAKING.

From the Coalinga field the Union now transports to the bay many thousand barrels of a light oil that is peculiarly adapted for

gas-making purposes, being found superior for that purpose to any other oil yet produced in the State. The demand for this oil is rapidly increasing, as the different gas companies recognize its peculiar adaptability for their purposes.

#### EXPORTING OIL.

As the output of California oil increased from year to year the Union was one of the most enterprising of all operating companies to find a market and create a demand for the product.

Early last year it set on foot plans which would result in the complete usurpation of oil over coal as fuel in the Hawaiian islands. How these plans were successfully carried out is now well known as an accomplished fact.

Up to two months ago the consumption of coal in the islands amounted annually to nearly 300,000 tons.

Of the eight islands comprised in the Hawaiian group, the following are the ones where sugar producing is carried on: Hawaii, Maui, Oahu and Kauai. The island of Hawaii is as large as the other three combined, with Hilo as its principal port. On this island there is an abundant supply of water for irrigation, and, consequently, it has been the banner island for the growth of the sugar cane. On the other islands

water is obtained with some difficulty, and many of the plantations have costly pumping plants, with which water is obtained from deep wells for irrigation purposes. In the sugar mills the refuse cane is used for fuel and for furnace use in the mills. There is no demand for fuel oil, but the pumping plants, which run for several months each year, and consume large quantities of fuel, create a necessity for a plentiful and cheap fuel.

In order to supply this demand the Union Oil company has placed tankage in the several islands aggregating over 300,000 barrels. The company's contracts call for a delivery of 2,000 barrels per day, an equivalent per year of 730,000 barrels, the contracts to run for a long term of years.

In order to supply this vast amount of oil at such a distance from the California oil fields the Union company has constructed the largest wooden vessel ever built on this coast.

She is the Fullerton, a four-masted barkentine, 270 feet long, with a 42.5 beam, a depth of 21 feet, and a displacement of 4,600 tons. The hold is divided into sixteen immense wooden tanks, each of which has a capacity of 1,000 barrels. The cost of her construction was in the neighborhood of \$175,000. She is a fast



Wells of the Claremont Oil Company, in Kern River, owned by the Union Oil Company.



sailer, and her first trip to the islands was begun on Monday, August 18, 1902. She makes the round trip in from forty to forty-two days.

The Union proposes keeping 100,000 barrels of oil constantly in storage at Honolulu, while the balance of the tankage capacity will be divided among the other sugar-growing islands of the group.

In addition to the Fullerton, the Union will soon have four tank steamers for use in the Hawaiian and other long-distance trade. These steamers will have a capacity of from 10,000 to 15,000 barrels each. A fifth tank steamer, with a capacity of 2,000 barrels, will be built for use on San Francisco bay, the main purpose being to supply vessels and tanks on wharves with crude oil.

Of these steamers, the Argyle, 30,000 barrels, will be ready for service about the middle of this month, and the Whittier, to be used in the coast trade, will be ready in March.

The coast trade in crude oil for fuel purposes is growing very rapidly, and in this trade the Union is taking a very important part. Last month it began regular shipments by sea to Portland, Ore., her barge, the Santa Paula, carrying thither her first cargo to that port of 8,200 barrels. This is but a beginning of the coast trade so far as the Union company is concerned. Before the close of 1903 the company expects to be shipping by tank steamers and sailing vessels an average of at least 4,000 barrels of crude oil per

day to points across the Pacific, and to the leading supply points north and south on the coast from Alaska to Central and South America.

It should be remembered that the Union Oil company, which is developing such a market for California crude oil, is a California corporation, headed by men who have lived their lives in the Golden State; that the capital back of the enterprise is California capi-

ital, and that the success of its great enterprises means added wealth to the State, which will be confined to and expended in the State. In fact no California corporation has achieved greater success in years in any line of business than the Union Oil company, and its enterprise and progressiveness in the face of most powerful and sharp competition merit great praise and congratulation.

The company has two main of-

fices—one in San Francisco, the other in Los Angeles, the former being the headquarters of the sales and manufacturing department.

The officers of the company are Lyman Stewart, president; Fred J. Rindge, vice-president; W. A. Carney, secretary; W. L. Stewart, general manager; John Baker, Jr., manager of manufacturing and sales department and of water transportation.



Oil From Jewett & Blodgett Wells, Sunset District.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY**

**470-471-472 Parrott Building**

**SAN FRANCISCO, CAL.**



## FOREIGN CAPITAL.

### French and English Capitalists Invest in Sunset Oil District.

**Companies Already Organized and More Will Be Formed to Develop Quickly and Profitably Oil Land in the Great and Prolific Sunset Oil Field.**

Less than a year ago some gentlemen, well informed as to eastern and foreign oil fields, and familiar with geological indications of subterranean petroleum deposits, visited California to examine the different oil districts, and make a selection of territory where a foreign syndicate could profitably invest a large amount of capital, and aid in the development of an oil district.

Nearly all of the oil districts of California were visited, and finally it was decided to obtain options on a large tract of land in Sunset district near the refinery of Jewett & Blodgett, and not far from the present terminal of railroad transportation.

The land on which the options were obtained was located in different sections, and all of it was believed to be rich in oil. The company had the privilege to buy

this land outright at a certain price, in certain quantities, and within certain periods of time.

The company as thus formed was called the Petroleum Oil Fields of Kern county, Limited.

It was composed of English and French capitalists, the French probably having the larger financial interests.

A tract of twenty acres was selected and chosen in section 13, township 11, range 24, and drilling operations were begun at once. The company purchased a first-class rig, secured the services of a competent superintendent, and were fortunate in choosing Mr. L. Aubert as the representative and manager of their interests. A good well, having a productive capacity of 150 barrels a day, was obtained at a little over 800 feet.

Having proved this tract of

twenty acres, it was at once sold to a new company of French and English capitalists registered under the laws of Great Britain.

The parent company originally purchased or rather obtained the option on the land from Jewett & Blodgett. This company not only gave them the option, but also agreed to purchase all the oil that



The Alpha Well of the Alameda Oil Company, Sunset.

pany, Limited, and their well, being the first one drilled by the Petroleum Oil Fields of Kern county, Limited, is called the Alpha well. Two more wells have been started, and are now being drilled, and two more will be commenced immediately. Plans have

might be produced on the land for a period of years at a price which should be a certain advance over the regular market price. This agreement, made by such a responsible firm, assures the holders of the land—the producers—immediate and satisfactory returns for



Wells of the Superior Oil Company, on 2, 11-24, Sunset District.



their product, and relieves them of the labor and anxiety of hunting a market and obtaining a good price.

The Alameda company is capitalized for £60,000, with shares of a par value of 4s. A pipe-line is already constructed from the wells to the refinery, about a mile distant.

The first well cost the company \$6,000. The other wells will cost less. The company has enough working capital all paid in to drill the entire thirteen wells proposed, and the money from the sale of oil can be used for the immediate payments of dividends.

The Petroleum Oil Fields of Kern county, Limited, having sold its first tract of twenty acres to the Alameda company, is now drilling a well on another twenty-acre tract in 12, 11-24, and is now down over 500 feet on this well.

The Sedalia and California Oil company is another company the stock of which is held largely by French investors. The land in this company is in 18, 11-23. Four wells are completed and the fifth is being drilled. The derricks for Nos. 6 and 7 are in course of construction. The oil output from the four wells is about 300 barrels, and the company has its own pipe-line. The company is capitalized at \$250,000 and two dividends of 2 cents a share have already been declared.

#### NEW DEVICE.

##### Wm. Plotts Patent Method for Oil Wells.

Wm. Plotts has just been granted a patent on his process for shutting off water from oil wells, which has been pending for a year or so. Some of the Whittier oil producers, says the News, have a fair knowledge of the process from observing its application on the Murphy



Wells of Monarch Oil Company, Sunset District.

Oil company's wells, where it has been applied for the last two years with complete success. The difficulty of shutting off water has been the greatest cause of anxiety to California oil producers, many valuable wells having been abandoned from inability to shut off the water, but by the Plotts process it can be done as certainly and with as little guess work as the operator can locate his break-fast. The method is as follows:

The well is drilled wet, i.e., with the hole full of water. This prevents the softer shales from squeezing the casing and makes the well "be good"; that is, prevents it

from filling up and flowing before it is finished. The well is drilled through the oil without attempting to shut off the water, after which the conditions must be as follows:

The strings of casing must be carried as far as it is desired to shut off the water. The inner one, which is to remain in the well, must be strong enough to resist the pressure against the outside where it is emptied. The other one must not be allowed to get stuck, and when it is completed, all but shutting off the water, the outer casing is mounted on a jigger of timber, or other means taken to impart a vertical motion, a stream

of water is introduced between the two casings, and screened sand or other suitable material is introduced slowly into the same place until a sufficient quantity is carried down to the bottom of the outer casing, where the shale or other caving material brought down by the action of the casing will have formed a bridge. The process requires much care, and as much as half a day of time should be given it. After the sand is all administered, the water and motion should be continued for several hours, if the well is a deep one, to insure the sand all going down and to prevent it from "freezing" the two casings together. The outer strings of casings can then all be removed as the well only requires the one string.

The agitation of the flowing water and the casing in the sand causes the coarser particles to settle to the bottom, the next in size higher up, and so on, with the fine sand on top, the pressure above then acts as a valve and causes the hard sand to adhere to the walls and make a bridge that nothing will move.

Sometimes there is plenty of suitable sand in the well, which the agitation of the casing works down to the proper place, but the basis of the bridge must be of sand, gravel or other hard material to prevent its freezing out.

#### DELINQUENT SALE NOTICE.

LOMA PRIETA PRUNE RANCH COMPANY.  
Principal place of business, San Francisco.  
Location of ranch, Monterey County, California.  
Notice—There is delinquent upon the following described stock, on account of the assessment levied on the 10th day of November, 1902, the several amounts set opposite the names of the respective stockholders.

	SHARES	AMOUNT
Geo. J. Bucknall.....	5	\$25 00
Eliz. C. Culver, Ex't'x.....	10	50 00
C. T. Deane.....	1	5 00
James Jerome.....	2	10 00
Jas. F. Mairhead.....	2	10 00

And in accordance with law, and an order of the Board of Directors made on the 10th day of November, 1902, so many shares of each parcel of such stock as may be necessary will be sold at public auction at the office of Madison & Burke, 30 Montgomery St., San Francisco, California, on Friday, the 9th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.

By order of the Board of Directors.  
FRANK MORTON, Secretary.



Potomac Wells Mirrored in Oil—Kern River.



# PEERLESS OIL COMPANY.

**One of the Most Successful Now Operating  
In Kern County.**

**Has a Large Acreage of Proven land, Has Excellent  
Management, and Is Always Prepared To Make  
a Satisfactory Report as to Its Affairs.**

The standing and success of an oil company depends upon two things: First, the quality and extent of its lands as oil territory; secondly, the character and enterprise of its management.

Of all the companies operating in the Kern River oil fields, or in the State of California for that matter, no one of them has been more successful or stands higher in the estimation of its stockholders, of the general business com-

H. C. Park, secretary; Gurdon Bradley, assistant secretary.

From the earliest beginning of development work the operations of the company have been conducted carefully and in a businesslike way. The moneys received and the moneys expended could always be accounted for to any stockholder or to any possible investor in stock, and in fact to the public generally,

The books of the company have

pumping jack which enables it to pump all its wells continuously and economically. It has three cement storage tanks which have a total capacity of 67,000 barrels.

Until about a year ago the company had sold a large part of its output to the United Oil Producers. A year ago, however, the company found itself called upon to take over to itself the business of the United Oil Producers, together with all their contracts for furnishing oil to consumers all over the State. This meant also the taking over of the plants which the United Oil Producers had established at such important distributing points as Oakland, Stockton and San Jose, as well as other distributing points in San Francisco and elsewhere.

For the last year the company has successfully carried on the business of selling oil, have filled all old contracts, and have made many most advantageous new con-

at work so that the company will soon have wells in reserve to enable it to furnish any desired amount of oil.

The company is now paying regular dividends of ten cents a share, and by the first of April, if not before, the dividends will be increased to twenty-five cents a share.

The stock, which originally sold at one dollar per share, is now selling at thirteen dollars a share, and is hard to obtain at that figure, as the holders of this stock are fully satisfied with it, and do not desire to sell at any figure.

In order to show the condition of this company, we publish the last annual report to the stockholders, and suggest that the example of the Peerless Oil company, in making such a full and complete statement of its affairs, be followed by other oil companies, and especially by those who up to the present time have



Some of the Wells of the Peerless Oil Company, Kern River District.

munity, and of those interested in the production and consumption of oil, than the Peerless Oil company.

This company was organized in October, 1899. It was capitalized at \$1,000,000—100,000 shares of the par value of \$10.00 each. A wise selection was made in the choice of land, the company being fortunate enough to secure an entire quarter of section 31, adjoining the wells of the Monte Cristo on the south, of the Sterling on the north, the Kern Oil company on the east, and Green and Whittier on the west. Every foot of this land is oil land, and its present worth cannot be estimated. Probably a value of \$3,500 per acre would not be out of the way.

The officers and directors of the Peerless Oil company are John M. Wright, president; Jacob H. Neff, vice-president; Z. S. Cather, Hon. James G. Maguire, Ed. Coleman,

always been open, and there has been no attempt or no desire to conduct the affairs of the company secretly or to seek to cover up any of its methods or modes of procedure.

The first development work was attended with great difficulty owing to the fact that at the time it was impossible to obtain other than a rig which was entirely inadequate so far as strength was concerned to reach oil sand. This rig was finally abandoned, and a new and powerful rig obtained with which the first well of the company was drilled successfully. Since then development work has gone steadily onward until at the present time the company has sixteen completed wells, and will soon have three more completed if they are not already finished by the time this paper reaches the public.

The Peerless company has a complete pumping system and a

tracts.

On December 1 the management of the Peerless company announced that it had made an advantageous arrangement with the Standard Oil company by which the Peerless had turned over to the Standard all of its distributing plants, all its contracts, old and new, and that on the first of January it would cease being a seller of oil, so far as hunting and maintaining an outside market was concerned.

The management states that the Standard has agreed to purchase from the Peerless company oil to the amount of 5,000 barrels a day for a period of five years at a price not less than twenty cents a barrel at the wells.

The Peerless has now a regular output of 3,000 barrels a day, and is drilling enough wells to enable it to furnish easily the necessary amount of 5,000 barrels a day. After this amount is obtained, one rig at least will be kept constantly

not seen fit to make public the affairs of their several corporations.

The report of the Peerless Oil company is as follows:

## ANNUAL REPORT.

We have three good water wells on our property which furnish sufficient water for all our present purposes.

We are pumping oil from fourteen wells, namely, Nos. 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16.

Nos. 3 and 5 were never completed properly and are now dead wells. At an early day they will be replaced by new wells bearing the same numbers.

On October 12th (yesterday) the daily product of our fourteen producing wells was given by our superintendent as follows:

No. 1, 275 bbls.; No. 2, 20 bbls.; No. 4, 300 bbls.; No. 6, 250 bbls.; No. 7, 300 bbls.; No. 8, 300; No. 9, 150; No. 10, 300; No. 11, 200 bbls.; No. 12, 225 bbls.; No. 13, 225 bbls.; No. 14, 150 bbls.; No. 15, 108 bbls.; No. 16, 225 bbls. Total, 3,028 bbls.

We are not drilling any new wells at present.

We have three reservoirs near the southeast corner of our property. The



capacity of No. 1 is about 12,000 barrels, and that of Nos. 2 and 3, 28,000 barrels each.

During the year ending with September 30th, our wells produced 711,168.42 barrels, of which 24,612 barrels were used in our operations at Peerless wells and 686,556.42 barrels were sold for the gross price of \$135,887.06.

Our power plant No. 1 consists of three boilers each of 30 horsepower.

Our power plant No. 2 consists of three boilers each of 70 horse-power.

Our pipe-line to the railroad is connected with reservoir No. 1 and our loading rack at siding No. 2 (Peerless siding) enables us to load fifteen cars at one time.

We have constructed a good house for our superintendent at a cost of \$2,170.56. Excepting the small house formerly occupied by our superintendent, all our remaining houses were erected for temporary use. At an early day they are to be replaced by better buildings.

May 1st we purchased and took over the business of United Oil Producers. This business enables us to dispose of considerable quantities of oil in addition to the oil we are delivering regularly to Pacific Coast Oil company.

The storage and delivery plant purchased for the use of our sales department has cost us \$19,150 and a fund of over \$20,000 is required in its business. So far the profits of this department have gone in the building up of this fund and in paying for said storage and delivery plant. Stockholders will observe that the storage and delivery plant is a tangible asset and that the amount of the sales department fund is in the form of cash belonging to the company; and as soon as the sales department has taken up all its notes, its profits will be added to our dividend fund.

Numerous "offers" have been made for Peerless property. Whenever we receive a favorable offer in tangible form it will be reported to our stockholders.

We have refused at all times to enter into combinations with other companies. The event appears to justify our course in this respect.

The condition of our affairs is best shown by our trial balance for September 30, 1902, which sets forth also our assets and liabilities.

Very respectfully,  
JOHN M. WRIGHT, President.

#### BALANCE SHEET.

Real estate.....	\$765,480.00	
Storage and Delivery plant.....	19,150.00	
Permanent improvements.....	110,590.7	
Water wells, Nos. 1, 2 and 3.....	3,620.37	
Oil wells, Nos. 1 to 4 and 6 to 16 inclusive.....	66,756.78	
(Oil well No. 5 charged to Profit and Loss account). Oil well No. 17, now No. 4. Oil wells 18 to 22, inclusive (derrick). ....	3,803.61	
Power plants, Nos. 1 and 2.....	7,742.12	
Pipe-line and loading racks.....	9,839.22	
Tankage.....	14,269.66	
Buildings.....	4,554.00	110,590.76
Personal property Tools and apparatus.....	22,719.64	36,641.15
Drilling rigs (3).....	9,502.10	
Office furniture.....	552.78	
Casing.....	4,066.63	36,641.15
Money due to P. O. Co.....		21,714.13
United Oil Producers.....	152.27	
Sovereign Oil Co. Sales Department.....	21,261.86	21,714.13
Cash in bank.....		8,646.61
Total assets.....		963,232.65
Expense accounts Operating expense.....	65,350.20	
Salaries.....	29,386.66	
General expense.....	17,009.03	102,745.89
Promotion expense.....		166,005.85
		268,751.74
Dividends.....		29,000.00
Profit and loss.....		7,486.39
Loss on oil wells abandoned.....	7,983.16	
Loss on insolvent debtors.....	145.36	8,128.52
Gain on sales and exchange casing.....		642.13
		7,486.39
		\$1,268,470.78
Capital stock.....	\$1,000,000.00	
Production.....	226,510.73	
Pipe-line rental.....	3,258.17	
Liabilities.....		38,701.88
Pay roll.....	1,966.25	
Sundry accounts.....	5,235.63	
Bills payable.....	31,500.00	38,701.88
		\$1,268,470.78

## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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Small Maps, per 1,000	30.00
Small Maps, each additional 100	15.00

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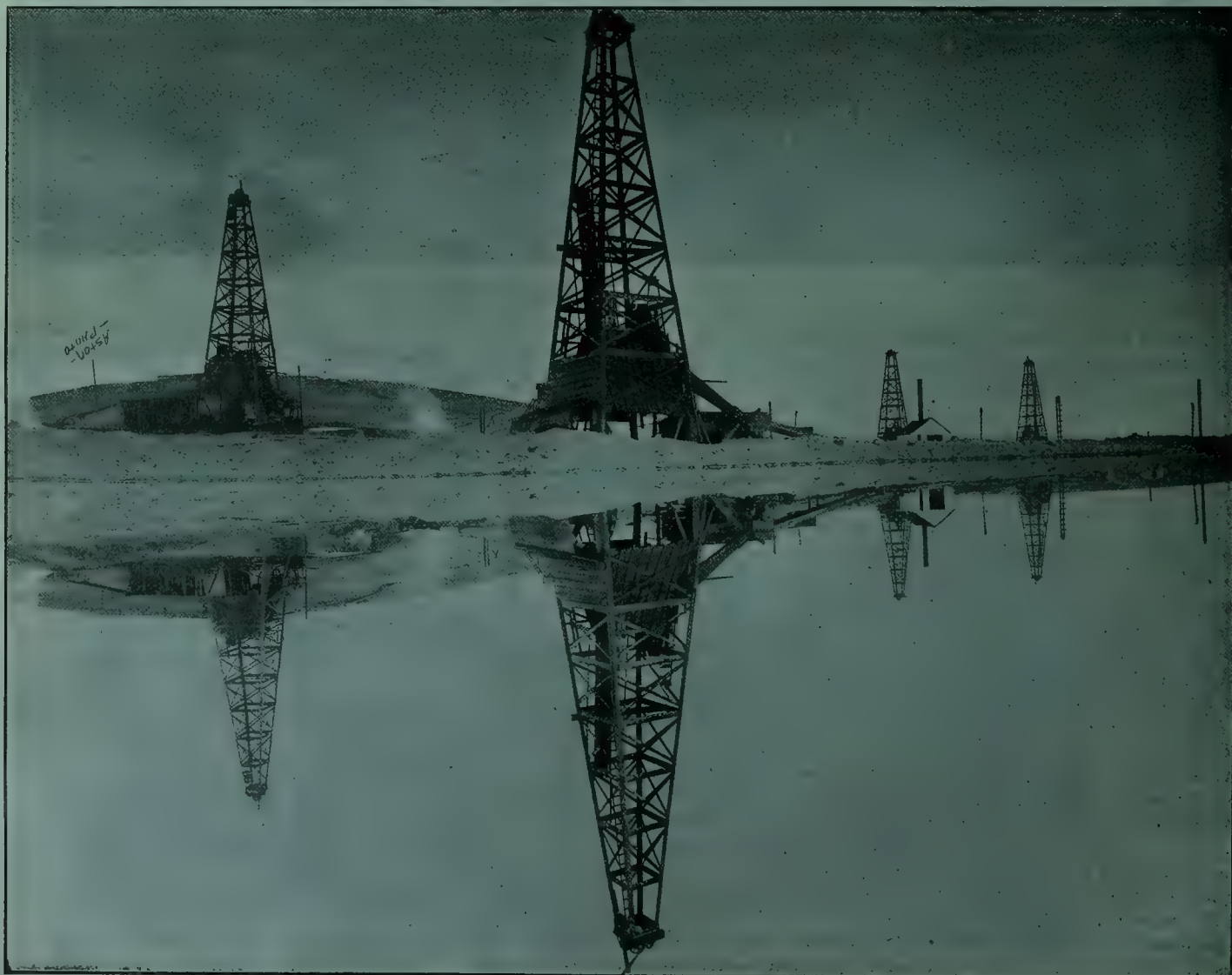
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**PACIFIC OIL REPORTER**

318 Pine Street San Francisco, Cal.



Wells of the Monte Cristo Oil Company, in 5, 29-28, Kern River District.





View of an Extension of the Los Angeles City District.

## THE LOS ANGELES FIELD.

### The Outlook Good for a Very Prosperous Future.

### The Era of Ruinous Competition Has Passed, and a Growing Market and Good Business Management Insure Prosperity.

By Theophile Colville.

The year of 1902 closes with the operators in this field resting content in the thought that the acute troubles of the past year are not to be repeated; that the present upward trend of prices is to continue, and that the re-adjustment of conditions in the oil industry generally is bound to safeguard the local field. That this optimism may react later to the detriment of the oil produc-

ers themselves is probably to an extent true, and more particularly as the present satisfactory state of affairs in the field results rather from the operation of economic law than from any exceeding wisdom on the part of the oil operators themselves.

Of the 1,042 producing wells in the field 931 only have been operated during the last few months of the year and some of the best producers were closed down altogether. At the close of 1901 the average of about 3,000 barrels per day for the year was being steadily maintained, while the present year is dying away with a daily average of nearly 1,000 barrels less than twelve months ago. About two years ago there was a surplus in the field of nearly 200,000 barrels of oil, while today there is no surplus stock and only sufficient in the tanks and in storage to handle the business that is steadily in-

creasing all of the time. This is a history of local conditions during the past year in epitome. Prices now are hovering around 70 cents, and will go higher, and the cause for this satisfactory condition is found in the fact that the depression of the industry everywhere compelled producers to do what they voluntarily were not inclined to do—curtail production. With the reduction of accumulated stocks, the increasing demand for the product had a direct tendency to stimulate prices in accordance with the ordinary law of supply and demand, and today the oil producers are facing what they indeed believe will be for them a Happy New Year.

But the fact is not to be gainsaid that the operators might today have several hundreds of thousands of dollars in their pockets had they displayed the same business aptitude and ability in the



Forest of Derricks at Los Angeles.



marketing of the product as is required in the conduct of any ordinary mercantile business of large and imposing magnitude. But, truth to tell, the history of the discovery and opening out of the Los Angeles oil field has been such as to segregate and differentiate it from all the other fields in the State.

#### DISCOVERY OF OIL.

There was little reason for surprise that oil should have been discovered in Los Angeles, the wonder being that it was not discovered at a much earlier date. The surface indications proclaimed the underlying wealth, and even in the early days of the pueblo La Brea rancho gained its name from the large pools of liquid asphaltum, from which the original settlers obtained the necessary material for roofing their modest homes after the fashion taught them in the first instance by the Mission padres. For many years the small deposit of brea on what is now known as West State street, near Douglas street, was drawn upon by the scattered residents for fuel, and that was the vicinity where the first practical effort was made to strike oil. In 1863, however, Mr. Baker of the Baker block, who was one of the wealthiest men in the community, took the initiative in drilling a well on what is

capital, but were known among their immediate acquaintances as being men with ideas, and they were earnest in their belief that they could find oil. It was in 1892 that Doheny and Cannon began operations at the corner of Patton and State streets, near the Second street park, and they themselves worked in the shaft until a depth of 150 feet had been attained. A small rig, designed for water wells, was then obtained, and a seven-inch hole was begun, which was carried down to 225 feet, at which point a vein of oil was tapped, and thereupon the petroleum industry of Los Angeles became an accomplished fact. The people of the city fully appreciated the importance of the discovery that had been made, for elsewhere in the State the oil fields were opening out. This well produced a small amount of oil for about three years, and though never a prolific producer, it served the purpose of demonstrating the presence of oil in the local field, and of arousing public interest in the industry that proved of immense benefit to the city. Doheny and Cannon brought into production a number of wells, but the market for oil had not then developed and oil became a drug to such an extent that they were obliged to turn their property over to their creditors. At later date these

the Sister's Hospital, incited operators to renewed effort, and during the last three of four months of that year, 1897, over 100 wells were drilled in that newly developed portion of the local field. In 1898 continued development had carried operators to a point due north of Westlake Park, and it appeared as if the choicest residential part of the city was about to be invaded. Property owners appealed to the city council to stop the encroachments of the oil men in that direction, and finally a compromise was arrived at by which it was agreed that oil wells would not be drilled nearer than 75 feet to the summit of the hill which lies north of the park. This prevented the invasion of the park, and left the drainage away from it, but, of course, could not and did not prevent the picturesque landscape effect upon which Angelinos pride themselves from being marred by the erection of the line of derricks along the sky-line, as viewed from the park.

It is needless to state in detail the various extensions made to the local field, suffice it to say that at the present time it may be said to extend for four miles from Buena street running west to Hoover street with an average width of 400 feet; and for two miles approximately north and south, with an

in the thickness of the oil stratum.

#### SATURATION AND PRODUCTIVENESS.

In every oil field a question of paramount importance is the possible limitation to the production of petroleum. To the mere layman it appears incomprehensible how a stratum of rock, as compact in its formation as the oil sand generally appears to be can hold such enormous quantities of liquid. Indeed, in the early days of the industry in the Pennsylvania field it was generally supposed that the oil collected if not in streams, at least in pools in underground caverns or crevices, as they were technically termed, and all paying wells were supposed to start from such fissures in the rock. That such fissures occur is quite true, for they often throw the tools out of plumb and start a "crooked hole," but that they are not a necessary adjunct to a paying well was proven long ago by Carll. After experimenting he showed conclusively that oil rock is capable of absorbing and holding from one-fifteenth to one-tenth of its own bulk of water or oil; this, too, when the pores of the rock are more or less clogged with residuum from the oil previously held by it, and without it being charged under pressure. Since then estimates have been made of the saturation of the oil sand in the various fields, and the amount of recoverable oil, with approximate correctness. So far as the Los Angeles product is concerned, it is to be remembered that it is a heavy oil, and that the gas pressure has never been very great. Estimating the thickness of the oil sand at 40 feet as an average, with a 10 per cent saturation, the oil stratum of the proven area would contain, in round numbers, about 26,087,894 barrels of oil. Opinions differ regarding the percentage of this oil that has been and is being recovered. Considering all the facts, it may be well to accept the most conservative estimate that only about one-fourth of the amount of moisture as theoretically estimated is actually being produced. And this, too, of course, only applies to where development work is in progress for while in some portions of the field there is a forest of derricks there are other places where they are sparsely scattered. The indications appear to be that after the wells have ceased to yield oil in large quantities they may still be made to produce small quantities for an almost indefinite time. At present there are wells that have been yielding from one to three barrels a day for over a year, and are still producing at the same rate without any very appreciable decline.

Much of the oil territory is covered with buildings, and this is all the better for the wells closely adjacent. During the past year some interest was aroused among operators by the attempt on the part of some of their number to reach a third oil stratum. All along the line at the east end wells have been deepened, and one company, in carrying on this work, was firm in the belief that a third sand had in very truth been encountered. The record of the production of the Los Angeles field, since 1893, is as follows:

1893.....	100,000
1894.....	400,000
1895.....	900,000
1896.....	1,200,000
1897.....	1,400,000
1898.....	1,182,000
1899.....	1,200,000
1900.....	1,200,000
1901.....	1,250,000
1902 (estimated).....	912,500

The decline in the amount of production during the year of 1902, has not been owing to any falling off in the productiveness of the wells, but has been wholly owing to the curtailment of production made absolutely necessary by the depressed condition of the oil industry generally, and the disorganized condition of affairs in the Los Angeles field. During the last month or two of the year the production has not ranged above 2,000 barrels per day.

#### OUTSIDE DEVELOPMENT.

Allusion has already been made to the oil bearing territory immediately contiguous to the city in the southwest, and which is practically a continuation of the city oil field. Without going far afield into the county, the development work being done in the Teiunga may be mentioned for the possibilities that lie ahead in the event of oil being struck. Two wells are being sent down,



Los Angeles Wells near West Lake Park.

now known as Hoover street, between Seventh and the Wilshire boulevard. No oil was found and the interest in the matter, that had been stimulated into activity by the well that had been drilled on La Brea rancho lying west of the city in 1856-57 and the attempt that was then made to produce illuminating oil from the crude product, died away. The company of associates that Mr. Baker gathered around him are reputed to have contributed \$65,000 for exploration work in the local field, and it is somewhat curious that only one well was sent down. In this connection it is interesting to surmise what caused this suspension of work while there was a goodly amount of money remaining in the treasury, for just thirty-six years later, in 1890, some of the most prolific wells in the field were brought into production within 1,000 feet of the old pioneer well, in the college addition.

It required the stimulus of the discoveries made in other parts of the State to incite to systematic investigation along practical lines in Los Angeles, and the pay streak was located by E. S. Doheny and George Cannon, both names to conjure with in the business world today, but at that time comparatively unknown. They had little

same wells were a source of profit to their new owners.

#### OPENING THE FIELD.

With the presence of oil in commercial quantities demonstrated the interest in the new industry of the community was stimulated into activity, and the Second street oil field opened out with great rapidity. By the end of 1893 there had been produced 100,000 barrels of oil, and by the end of 1895 there had been sent down more than 300 wells within an area of about 90 acres. The oil excitement throughout the state had been very great in 1900 and that year has been unexampled for the taking up of oil lands and in the formation of companies. But notwithstanding this in 1894 the total product of the state was only 600,000 of which amount the Los Angeles field supplied 400,000 barrels, and a goodly proportion of the remaining 20 per cent of the total production was supplied from the Ventura county field.

But in the meantime the work of prospecting had carried the oil field extension well to the eastward, until a break in the formation at Victor street prompted to investigation along a different line. The discovery of oil to the east of Victor street, in the vicinity of

average of nearly half a mile in width. Within this area there is a vast amount of unexploited territory, but this comprises the proven ground excepting the western extension which is outside of the city limits though so immediately contiguous to it as to make it part of the Los Angeles field. Of this western territory little can be said save that to date it has not proven remunerative. It is also true, however, that by reason of the slump in prices work in this direction has been at a standstill. The fact that the Salt Lake Company has brought in five prolific wells, and that oil has been elsewhere obtained indicates clearly enough that the territory in the south-west, on the Santa Monica electric line holds out promise of a rich return in the future.

While it is true that much of the local ground remains to be developed a very little figuring will show that the Los Angeles field as at present defined within the proven area, and taking no consideration of the southwestern extension, which is outside of the city and is yet unprospected, is very small when compared with other oil fields in the state. Without figuring too closely it represents less than a section and a half, in which there is some variation



one by the Russian Oil Co., and the other by the Apex Oil Co. A third company was engaged in drilling, but just when signs of oil were beginning to appear, the hole was spoiled, and had to be abandoned. The land in the Tejuanga, upon which these companies are operating is said to have been prospected and located by the same man who located the first well in the noted Pico Canyon, and that the strike of oil line in the Pico is a continuation of that in the Tejuanga, but less well defined. The Russian Company has had great difficulty for several months past with water and caves. The well has been carried down to about 1,200 feet, and a very small amount of high grade oil has begun to show. It is not possible to say from the few indications, what the result of this company's steady and persistent work in the face of most adverse circumstances will be, but in the event of oil being tapped similar to that obtained from the Pico wells, it is safe to say that a hundred derricks will soon decorate the hill sides in the Tejuanga canyon.

To the west of the Cahuenga Pass, the sedimentary rocks show metamorphism and contain a few fossils which Dr. Cooper has referred to the Eocene period, and along the shore line west of Santa Monica, the rocks exposed are similar in appearance, and are supposed to belong to the same geological horizon as the rocks exposed at Los Angeles. On the Malibu rancho evidences of petroleum have been very marked, and besides seepages, shale, sandstone, and conglomerates gas blow-outs have been found; and, perhaps, the most important of all, black shale with seams of paraffine wax and lime. Assays of this, made by one of the attaches of the State Mining Bureau, are said to have shown 71 ounces of paraffine to the ton, and from this showing it has been inferred that when oil is found it will have a paraffine base. In Carbon, Santa Cruz, and Decker Canyons oil shale and rich seepages are very much in evidence, and experts have held the opinion that oil should be found at from 800 to 900 feet. Nearly all of the land not included in the Malibu rancho has been taken up, and the major part is owned by the directors of the Los Angeles, San Pedro and Salt Lake road.

While it has been realized that the time has not been ripe for exploiting this region on any large scale, Frederick H. Rindge, owner of the Malibu rancho and a very wealthy man, undertook to do a little pioneer work.

A drilling rig was installed and work has been going on for about two months. The location selected is not the best that might have been chosen, the indication of oil being much better farther back in the country, but it is convenient to tide-water, and if a new field should open up, this is the one feature that will make it of surpassing importance. Sometime ago, suit was begun by the United States Government to condemn 35 and one-half acres at Point Dume for the establishment of a fog and signal station. This land is on the Malibu rancho, and condemnation proceedings have also been begun by the Government to obtain a tract of land at Canyada del Corral Viejo, to be used in building a wharf and constructing a roadway to Point Dume. From this those interested in the development of the region are taking comfort in the thought that when oil is developed in quantity, the transportation question will offer no difficulty. The product can be carried by pipe line from the field by gravity to tide-water. It is but right to say, however, that while this district will be watched with interest during the coming year, when it is believed that considerable development work will be done, the possibility of obtaining oil with a paraffine base is a thing hoped for rather than that it is to be a certain result when petroleum is obtained in quantity. Nevertheless, the facts as stated have been certified to by experts of indisputable authority.

#### A MISMANAGED MARKET.

It is the veriest truism to say that the oil underlying the city of Los Angeles never would have been developed if there had not been a market to absorb it. The crux of the whole oil industry is to so bring the product to the consumer that both the producer and the consumer may make money, and in this the local operators have only been measurably successful. In 1898, when the practical use of oil, as a fuel began,

the price in Los Angeles rose to \$5 cents, and following year to 45 cents, and in 1900 to \$1 a barrel at the wells. An even higher price was obtained but for our averages these figures will stand. Everyone was happy, and only those with acute business understanding realized that the local price must be fixed not by local demand, however greatly on the increase that might be, but by the price at which oil in the Kern river field could be brought over the Tehachas, and delivered to consumers in Los Angeles county.

A Producers' Association had been formed and the history of that organization illustrated the absolute folly of any body of men trying to meet on ground common to all, without being prepared to make individual concessions for the benefit of all. At Kern river a veritable ocean of oil was being developed, and without any outlet for it, owing very largely to the refusal of the railroad companies to provide necessary tank cars for transportation. The car companies in the East were ready and willing to contract to make delivery at three or six months of any number of cars, but the railroad companies did not place these orders, and the result was disastrous to the operators of Kern river. One result of this state of affairs was that brokers and jobbers in Los Angeles began filling local orders with oil from north of the range, and

drilling costs a good deal of money, despite the fact that wells in the Kern field have been and can be at a little of the cost of other fields, and these small operators were very soon in debt. From that time on money for immediate needs was what they wanted, what they had to have, and no scheme proposed by the more substantial members of the Producers' Association had the slightest chance of being adopted unless the pressing need was provided for. But as the substantial members were not regarding the Association as an effective agency, they lay back and did nothing, and in due course the Association died from inaction. That was to be expected, and one or two members realized the fact and made the proposition that the substantial members devote some percent by which they might cover the others and ride all concerned over a critical time. Ten cents on a 100,000 barrel production would have only amounted to \$100,000, and it was estimated then, and has since been shown that the estimate was about right, that such an amount would have prevented the market falling to prices as it did.

Most of the companies entered into an agreement with the Oil and Transportation Co., to market their product and a meeting of the committee of producers met each month to fix a selling price. But quite a number of operat-

ors felt that the actual production has been overtaken and the surplus of fully marketed oil was being seen that local operators have had little to do with meeting the conditions that have brought about this state of affairs. New work was started on until it was common to continue and not before, and the expansion of the market has resulted from the oil and work carried on throughout the country, and the quickness on the part of the consumers to perceive the possibilities ahead by the utilization of the new fuel.

#### OUTLOOK FOR PRESENT YEAR.

The outlook for the year of 1903 is excellent. The stocks on hand are so small that oil from Whittier is, in some instances being brought to fill contracts. To say it is not possible to go into the field and contract on the instant for 5,000 barrels a month for a year at current rates, and without allowing time for the seller to protect himself. Oil is selling strong at the wells for 60 cents, with some sales made for 70 cents, and 75 cents a barrel, may be said to be in sight. At the latter figure there is a profit, but not until oil sells at \$1 a barrel, can the operator be said to be making a good profit. At such price the producer may reasonably consider himself as doing fairly well; for it is to be remembered that in selling oil from his wells, he is drawing on a bank that



Los Angeles Pumping Plant—Pumping Twenty-Six Wells.

the slump in prices in the local market followed. The production, that had gone on increasing from 1898, reached its highest point in 1901, notwithstanding these untoward conditions, and the congestion became so great that at one time there was a surplus at the wells and in storage of about 200,000 barrels of oil.

The Producers' Association met each week, but without any measures being determined upon to meet the difficulty confronting it. With certain exceptions each individual operator appeared to be desirous of forcing upon the Association that particular idea which he considered a panacea for his particular and individual need. Nor was this altogether strange when the make-up of the local field is considered.

The oil field opened out in the city itself, and in districts for the most part built up as residential neighborhoods. With such a good thing in sight as an oil well and every new thing is a good thing to the man that knows nothing about it, very many individual holders determined to hold the fabulous fortune stored beneath their garden lot for their own individual use, and proceeded to drill for oil themselves. Others associated themselves together in small companies, and the oil field was opened out by a vast number of individual property owners and small companies without a large amount of capital. But

ors remained outside; they couldn't afford to tie themselves up in any way, however slight. They had to have money; money was their constant cry, and they had to have it. Prices scaled down as the surplus scaled up. It was no uncommon thing for an operator to go to a broker and tell him that while he didn't want it known that he was selling oil so low, he was willing to let go on 1,000 barrels at such and such a price, if the trade could be put through at once, and without being made known. The seller had to have money and that was all there was to it. Considerable oil was sold at 25 cents a barrel, and inconceivable though it may be, 1,000 barrel lots have been sold as low as 15 cents a barrel at the wells. Of course, such a price did not anyway near pay for production, but the operator was caught in a tight place, and was compelled to let go. This Cain like attitude of the local operators continued well into the year 1902; each one's hand was against his fellow in a business way; it was God for all and the Devil take the hindmost.

During the year now ended, however, two causes have operated to bring about a change for the better. For a number of months there has been almost a suspension of new work in the field, and consequently, the new production has been insignificant; and the market for oil has been expanding so

has not got an unlimited deposit. The life of a well is limited, although some producers have acted as if the contrary were the case. In the early summer, the Union Oil Company issued a statement to its stockholders in which the following suggestive words occur:

"Oil can now be purchased at prices which scarcely exceed the cost of production, and our opinion is that within a comparatively short time, oil will considerably enhance in value, and although the company has large holdings of oil lands, aggregating more than 100,000 acres, the Board of Directors deems it prudent to conserve the production of the company as much as possible for the higher prices which the future holds, and buy while the low priced oil may be had."

In this paragraph is contained the synthesis of worldly wisdom so far as the oil industry is concerned, and when a local paper (The Herald) got hold of one of these private statements and published it, it had a decided effect in revealing to producers in the local field, the foolish policy they had been following.

But the producers in Los Angeles would not feel so satisfied with the outlook, were it not that favorable conditions are attending the oil industry generally throughout the State. Locally, 75 cents is regarded as the certain price in the very near future, and a safe



price at that, because Kern river oil cannot be sold now for less than 25 cents. With oil quoted at Bakersfield for 25 cents, the Los Angeles oil is fixed at 75 cents.

#### REFINERY INTERESTS.

The low price of oil gave an impetus to the business of refining until to-day, the money invested in this branch of the oil business is very large. At least two additional refineries would be running in Los Angeles today were it not for the difficulties thrown in the way by the authorities, by making it almost impossible to obtain a suitable site. While it was the possibility of finding a profitable market for the asphalt that prompted the attention of moneyed interests to the refinery business, investigation showed that, with a more complete plant than that required for extracting merely the asphaltum, by-products could be obtained that would be also very profitable if they could be marketed. That was the rub—to find a market for the by-products. As a result of much labor and money expended large shipments are being now made from Los Angeles to the east, and by-products are being sent all over the country, and as far over the sea as to Cuba and the Philippines.

All of the refineries in the city are not now in operation, but the following six are given with their capacity: Hercules, (1,000 barrels); New Franklin, (850); Union Con., ( ); Coombs, (2,000); Southern, (200); Pacific, (64).

The crude petroleum from this field ranges from 12 degrees to 18 degrees gravity, and from the heavier oil is obtained an asphalt that is in constantly increasing demand. A test run was made at the New Franklin refinery quite recently on 110 barrels of 15 degree gravity crude with the following result:

Asphaltum, 33 per cent (99 6-10 pure). Heavy Distillate, 34 per cent (26 5-10 gravity).

Green (Skid) Oil, 18 per cent.

Engine stock, 10 per cent.

Loss, 5 per cent.

Total, 100 per cent.

For a long time the Asphalt Trust obtained much of its asphalt from Southern California, and with this filled eastern contracts; but within a recent period it has become the custom in the east to decry the California product and exalt the Trinidad asphaltum

as the product par excellence. It has been noteworthy, none the less, that the Trust in several instances used California asphalt to fill contracts and passed it off as the Trinidad product. But all of that is now outside of serious consideration for the Los Angeles asphaltum has established its reputation, and all that the refineries can manufacture is meeting with ready sale. Indeed, at the present time the demand for asphalt is not nearly being met.

As it can be manufactured at different points in the state at varying cost an attempt has been made to have refiners throughout the state maintain a schedule of prices. In Los Angeles the popular grade of paving and roofing material has been held at \$12 per ton, and none has been selling under that figure. It has been tentatively agreed, however, that \$2 a ton shall be conceded to the northern end of the state. How this plan may work remains to be seen, and there are those who aver that only along the lines of combination can a schedule of prices be maintained.

The following list of by-products being manufactured, and the uses to which they are put, is given in popular terms and without technicality: Tree Emulsion, an insecticide for orchards; neutral oil, white, amber and extra heavy (manufacture of paints); cylinder oil, several grades for dynamo and engine purposes; journal oil, used largely by street railway companies; universal and castor oils, for heavy and light farm and other machinery; lubricating oil, engine stock, used for compounding; and the different grades of distillates used for making gas, in gas-engines, and as ordinary fuel.

A deal was recently put through by a local jobber by which all of the low grade distillates from the city refineries will be placed. This means about 10,000 barrels of distillate disposed of advantageously each month. It is reported that this arrangement went through, in part at least, owing to the contention of very high authority in the industry that one barrel of the distillate contains a much greater number of heat units than a barrel of crude. That a barrel of crude contains 42,000 heat units, and that a barrel of distillate contains just 14,000 more. Theoretically, this is said to be true, but there are some expert refineries who aver that in order to prove such contention one has to juggle with

figures. Be that as it may, it was on some such basis that the recent deal was made.

#### CITY DAMAGES AND PROFITS.

No one has ever ventured to deal with the Los Angeles oil field without advertising to the heavy depreciation of real estate by reason of the advent into the residential district of a multitude of oil derricks. This, too, notwithstanding that save in exceptional cases, there has been no loss to the property holder whatever. No property owner would have dreamed of drilling himself, or of leasing his front garden had he not felt reasonably sure of making money; and in most cases he has made enough to buy three or four such premises as he was occupying. As the wells become exhausted, too, the derricks disappear, the holes are filled in, and once again the ground, after being despoiled of its underground wealth, appears as of old. That the beauty of the landscape is destroyed might, perhaps, be conceded, but estheticism is not likely to be cultivated at such a sacrifice of money as the neglect of the oil industry would have required.

To-day the value of the industry may be summed up somewhat as follows:

1073 wells .....	\$1,235,460
Tankage .....	272,680
Pipe-lines .....	220,920
Machinery .....	340,000
	\$2,069,060

These valuations are based on the assessment valuations made during the year. To estimate the value of the total production of the field during its life is outside the bounds of possibility, but at least an industry which is receiving a handsome return upon the money invested as given above stands as a very good offset to the individual instances of hardship, where there has been an actual and permanent depreciation of real estate. In the coming year, the industry will expand. New uses are being found for the oil, and as the demand increases, the field work will increase. Many of the wells are yet in the first sand. These range from 850 to 1,000 feet, and at about 1,350 feet the second sand is tapped whether a third sand exists or not, is matter of dispute among the operators, and it remains for the future experimental

work to absolutely determine the full possibilities of the field.

Theophile Colville.

Los Angeles, Cal., Dec. 14, 1902.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

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The New Franklin Refinery.

### THE NEW FRANKLIN.

#### One of the Most Prosperous Oil Refineries in the State.

The Association of California Oil Refiners recently formed in Los Angeles, has attracted wide attention, and is surely an important movement, in combining as it does the market interests of all those engaged in the refining of California Crude Petroleum. The new association is undertaking to regulate only the market on California asphalt, but already the benefit to be realized from such association agreement is being felt, and with the increasing mar-

ket for asphalt throughout the East, the members of this association are surely to be congratulated. Refiners of California Crude are kept busy night and day to fill orders that, once started, roll in with regularity, and this branch of the oil industry seems to be in most prosperous condition.

Among the California refineries may be mentioned as one of the best known and most prosperous, the new Franklin Oil and Refining company of Los Angeles, and of whose plant we are enabled to publish a cut from a recent photograph. This refinery is located on the southern city limits of Los Angeles, im-

mediately upon the main line of the Santa Fe Railroad to Redondo, and having been in successful operation for several years past, is one of the well-known manufacturing enterprises of southern California. At the present time the Franklin Refinery is handling through its stills about 7,000 barrels of crude oil per month, and has a ways orders ahead for its refined products. Asphalt from the Franklin Refinery is sold through Chicago and New York agencies, as well as locally, and the other products such as gasoline, distillates, and lubricating oils are sold through regular agencies in Arizona, California, and the Pacific

Northwest.

The Franklin is also manufacturing a line of roofing supplies, including paints, that finds a ready market.

The New Franklin Oil and Refining company is certainly a prosperous and successful company, and may be rightly considered among the strongest concerns in that line of business in the State.

The plant is being enlarged to permit the storage of a greater quantity of crude oil than has been possible heretofore, and it is intended to add immediately one more asphalt still. The present supply of crude oil for this refinery is being obtained almost entirely from the Los Angeles field.



## THE CAREAGA OIL FIELD.

**Here the Western Union Oil Company Has  
A Great Property.**

**A Dozen Wells are Now Yielding High Gravity Oil at  
the Rate of Over Two Thousand Barrels a  
Day—The Output all Provided For.**

By Julius Ebel.

The Western Union Oil Field, in northern Santa Barbara county, seems destined to become one of the foremost oil-producing sections in California.

This fact is borne out not alone by the predictions of eminent authority and the established success of the company itself, but by the successful devel-

opment of oil on neighboring properties taking in many miles. With a number of wells in various sections, the Western Union property has been quite thoroughly exploited, and in every instance with most gratifying results. At the beginning of operations some three years ago, the company met with severe reverses and for a time fears were entertained whether development work would be carried on to a successful outcome. The first well had been sunk to a depth of 2,000 feet, and the drillers were about to penetrate the oil sand when an earthquake twisted the casing and made further progress on the well impossible. The great expense incurred up to this time, made some of the promoters feel rather wary of putting down any more wells lest they should meet with a similar accident. The majority of the stockholders however, had confidence in the project, and operations continued until in September, 1901, a strong flow of oil was encountered.



Refinery of Pacific Oil Transportation Company at Gaviota.

From that time on the field proved a bonanza, and the property today is rated in the millions. Over 15,000 acres comprise the Careaga ranch on which the Western Union Company has the exclusive oil and mineral rights. On this property at the present time there are ten wells under the pump, each one yielding from 300 to 400 barrels a day, while work on seven more is progressing day and night. The wells attain depths ranging from 1,500 to 2,000 feet, with an average of 1,650. The formation is mostly a blue shale which varies in hardness. Quick-sands are occasionally encountered, but not to any great extent. The time required to drill a well depends very much on the material used, formation encountered, and style and size of casing employed. Most of the wells are drilled by contract, and are generally completed in sixty days. The contract price for putting down a well ranges from \$1.25 to \$1.50 per foot, according to the depth that the driller is required to go.

The Western Union oil has a specific gravity of 24 degrees. When the oil was first discovered and piped to Blake Station, two miles distant, it flowed through a two inch pipe on gravity with only a very slight fall. It is exceptionally free from water and as

a fuel finds a ready demand wherever it is once tested. Among the first to use this oil was the Union Sugar Co., at Betteravia, which consumes large quantities annually. The test proved so successful that the Pacific Coast Railroad immediately afterward changed its engines from coal to oil burners, with most satisfactory results. Since

then the Santa Maria Flour Mills have adopted the use of oil as fuel and find it superior to the use of either coal or wood, as well as decidedly cheaper. On large contracts the oil is sold for \$1 a barrel, while in smaller contracts it brings as high as \$1.10 per barrel. Aside also, from supplying the county with oil for road building, the company furnished the neighboring oil companies with oil and gas for fuel purposes, which is piped for miles in all directions.

The greater part of the oil produced, however, is pumped to Careaga Sta-

tions on the Pacific Coast Railroad, from which point it is disposed of to the Pacific Oil Transportation Co. This company has acquired the use of a pipe line which extends from Careaga to Alcatraz, a good shipping point on the ocean, and with powerful pumping plants forces the oil a distance of thirty five miles to the latter point where it is partially refined. From here it is loaded on steamers and

refined. The venture, after several years' operation, proved unsuccessful, and remained idle until the recent discovery of oil, when the Pacific Oil Transportation Company took hold of the property. By relaying twelve miles of the pipe line, the company is enabled to handle the output of the Western Union wells with ease and at a very low expense.

At a meeting of the stockholders



J. A. Fairchild, C. A. Canfield, H. J. Crocker, W. A. Jacobs, Dr. C. T. Deane and Fred Harkness at Western Union Well.

shipped to the Hawaiian Islands and the Orient.

The refinery, as well as the many miles of pipe-line through which the oil is conducted has until recently been a part of an immense asphalt mining scheme, whereby the unlimited deposit of asphalt in the Sisquoc mountains was mined and reduced to a liquid state and with the aid of benzine piped to Alcatraz, where it was

of the Western Union Company, held recently at Los Angeles, it was agreed to give the Pacific Oil Transportation Company an option on the entire holdings up to April 1st, and the opinion among those in a position to judge, leads to the belief that the latter company will avail itself of the opportunity to acquire this valuable property.

Julius Ebel.

Santa Maria, December 14, 1902.

Oil-fired engines are being run for experimental purposes on the London, Brighton and South Coast railway. They are burning liquid fuel (presumably Texas), which gives off no smell during combustion. The oil is stored in a galvanized iron tank, provided with a gas pipe, and placed in the tender. When the engines are in the stations care is taken by those in charge to prevent persons from seeing the liquid fuel burning arrangements. It is obvious that the company is conducting the experiments on most perfect

The Julia Luckenbach, the recently converted tank steamer, was the first vessel consuming fuel oil to leave New York. She was to make a trip to Sabine Pass, Texas, and will return with a cargo of Texas fuel oil. The capacity of this vessel is 4,000 tons.

The new docks and depots were opened at Nancy on November 1st. Among other erections, reservoirs have been built for the storage of petroleum. These reservoirs have been erected on land apart from other buildings.



Western Union Oil Wells on the Careaga Rancho, Santa Barbara County.



## DESERVE GREAT CREDIT.

### Success Attending the Operations of the Pacific Oil Transportation Company.

**Extensive Business Built Up in a Short Time at Home and Abroad—Immense Resources in Tankage, Pipe-Lines and Transportation Facilities.**

The youngest, perhaps, but by no means the least important of the large companies operating in oil in California is the Pacific Oil Transportation company, the main office of which is in San Francisco.

As its name implies its main business is the transportation of oil, both crude and refined.

Though organized scarcely a year ago, the company, backed by abundant capital, and handled by men of rare sagacity and business enterprise, has pushed rapidly to the front in the oil

cities of the State, and to many consumers whose plants are scattered about in isolated places, some along the lines of the various railroads, and some about the bay shore, reached only by flat-bottomed, stern wheel steamers. It supplies oil to numerous steamers large and small, some running about the bay, others up and down the coast, others to far-away ports on the Pacific, such as the Enterprise, 4,000 tons, fuel capacity 3,000 barrels, running to Hilo, and the Mariposa, 3,158



Refinery and Landing of Pacific Oil Transportation Company at Gaviota.

business and is now prepared to do and in fact is doing a business that a year ago would have seemed impossible to have been built up in a decade. But the vast production of oil in new as well as in old fields and the correspondingly rapid increase in the demand and in the consumption of the new fuel has brought about possibilities in the oil business that could not be foreseen a year or two ago, and that to-day cannot be realized without a personal investigation as to the uses to which the new fuel is being put and the enormous increase in its consumption which is being effected more and more in every city, town, village, mining camp, and almost in every large ranch on the Pacific coast.

To demonstrate this fact it is only necessary to note the history of the Pacific Oil Transportation company and what it has accomplished in a short period.

The company supplies oil to very many consumers of fuel oil in San Francisco, Oakland, and to almost all the large interior

tons, fuel capacity, 7,100 barrels, and running to distant Tahiti; and the Alameda, a sister-ship of the Mariposa.

Not content with a large share of the California trade in fuel oil the Pacific Oil Transportation company has branched out after the oil trade in distant parts, and is now shipping regularly large quantities of fuel oil to the Hawaiian islands and to northern parts such as Portland, Oregon, where coal and wood was supposed to be so cheap that fuel oil competition was deemed impossible and impracticable.

As proof that the company has succeeded in a short time in building up a big business in fuel oil it is only necessary to state that in San Francisco they have a tankage capacity of 55,000 barrels, in Portland 55,000 barrels, in Honolulu 70,000, and at Alcatraz 60,000 barrels. The last named furnishes a chapter in itself. In all then the company has a total tankage of 240,000 barrels—an exceedingly good showing for a concern yet scarcely a year old.

#### SOURCE OF SUPPLY.

A tankage capacity of 240,000 barrels, which capacity is being constantly increased as the consumption of fuel oil becomes more general, requires a great and increasing source of supply of crude oil. This the Pacific Transporta-

tion company has secured in most favorable localities as regards transportation facilities, and of a quality second to none in the State.

transportation in the way of more tank cars. The main source of supply, however, is from the new and prolific Careaga field in Santa Barbara county where the Western Union company has already a dozen wells and is drilling more as

tion company has secured in most favorable localities as regards transportation facilities, and of a quality second to none in the State.



Tanks of Pacific Oil Transportation Company at Honolulu.

In the Kern River field the company obtains a portion of its Kern oil from the dozen wells of the Sterling and Sovereign companies, and their neighbors.

These companies will soon have a number of new wells finished so that their production will soon be materially increased.

In the Coalinga field the company obtains large quantities of high grade fuel from several producers who have a great deal of first-class oil territory so that their oil output can be increased as rapidly as the railroad can furnish

rapidly as possible.

This field is fully described in the preceding article.

Suffice it to say that the Pacific Oil Transportation company can rely on a regular supply from the Western Union wells to-day of not less than 2,000 barrels a day, and this quantity can easily be and is being increased.

A few weeks ago the Pacific Oil Transportation company purchased the great asphalt refinery at Gaviota, called the Alcatraz refinery, together with the pipe-line running formerly from the refinery to Sisquoc. This pipe-line was removed and re-laid from the refinery to the Western Union wells, a distance of thirty-nine miles. It is a four-inch pipe-line,



Western Union Well No. 3, Commenced Flowing September 3, 1901.



and can easily carry 3,000 barrels a day of the light oil from the wells to the refinery at Alcatraz. This refinery has a capacity of refining 2,250 barrels of crude oil daily. The light volatile parts are removed from the oil leaving a fifteen degree residuum oil that for fuel purposes cannot be surpassed. From the distillate is made gasoline, benzine, kerosene, etc.

The refinery is located near the landing at Gaviota where a large and substantial wharf enables vessels of large tonnage and deep draft to call at any season of the year to either replenish their fuel supply or load up, if they be tank vessels or steamers, with a big cargo of fuel oil.

The track of the Southern Pacific runs directly past the refinery so that the company has the advantage of both sea and rail transportation.

This refinery enables the Pacific Transportation company to furnish its patrons a pure fuel oil free from all impurities and from moisture, and an oil that maintains a high flash test, insuring safety, under all conditions.

At Alcatraz are tankage facilities of 60,000 barrels. At the wharf at low tide there is a depth of twenty-four feet.

#### TANK VESSELS AND STEAMERS.

The Pacific Oil Transportation company has vast quantities of oil at its command, and it has tanks in which to store it. The next question is, What facilities has the company for transporting this great amount of liquid fuel?

In the first place it has the great tank sailing vessel the Marion Chilcott.

This vessel will soon be making her third trip to the Islands where the company is under contract to furnish 300,000 barrels of crude oil to the sugar plantations for fuel. The vessel is a bark of 3,000 tons carrying capacity. She is fitted up with twelve immense tanks having in all a capacity of

17,000 barrels. She is a fast sailer, making the round trip to the Islands in twenty-eight days, coming up in the surprisingly fast time of twelve days. She requires but one day to load or unload, her powerful pumps sending the oil through a half-mile pipe-line to the tanks on the Islands as if it was water. This vessel is a practical demonstration what a tank sailing vessel can do in the way of transporting California oil to distant ports.

Still more capacious and effective as an oil-carrier is the steamer Rosecrans recently purchased from the United States government as a transport and refitted

as a tank oil-carrier. The Rosecrans is a modern steamer, in perfect order, and has a tank capacity of 24,000 barrels. She will easily make the round trip in twenty days and with the Marion Chilcott will enable the company to meet easily all the present demands for crude oil both in the Islands and along the coast.

In starting a new venture in the oil business on such large lines, and in carrying its plans to such successful fulfillment, stimulating as they do the oil business and adding greatly to the benefit of producers by increasing the consumption of oil, the officers and directors of the Pacific Oil Transportation company deserve

great credit, and justly receive the thanks and cooperation of both producers and consumers.

#### The Pacific Underwriting and Trust Company.

Home office, Parrott Building, San Francisco, Cal.

If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

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Address all communications to the Company at its Home Office.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

IN THE SUPERIOR COURT OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA.

In the matter of the Estate of Mary T. P. Flynn, deceased.

Upon the reading and filing of the verified petition of Hugh Flynn Administrator of the Estate of Mary T. P. Flynn, deceased; it is hereby ordered that all persons interested in the estate of Mary T. P. Flynn, deceased, be and they are hereby required to be and appear in the Superior Court of the City and County of San Francisco, State of California in the Courtroom of said Court department 9 thereof in the City Hall of said City and County on the 19th day of January 1903 at 10 o'clock A. M. of that day to show cause, if any they have why the realty belonging to said estate and hereinafter described should not be mortgaged for the sum of twenty-seven hundred dollars or such lesser amount as to the Court shall seem meet; reference to said petition is hereby made for further particulars.

The realty referred to is described as follows: Commencing at a point on the southeasterly line of Minna street, distant thereon 368 feet 9 inches southwesterly from the southwesterly line of Fourth street, thence southwesterly along said line of Minna street 23 feet 9 inches, thence at right angles southeasterly 80 feet thence at right angles Northeasterly 23 feet 9 inches thence at right angles northwesterly 80 feet to the point of commencement, and being a portion of 100 Vara lot No. 133, in said City and County of San Francisco.

It is further ordered that notice of this order be given by the publication thereof for four successive weeks, at least once a week before the time appointed for said hearing in the PACIFIC OIL REPORTER, a newspaper published in said City and County.

J. V. COFFEY, Judge.

Dated December 17th, 1902.



Steamer Mariposa.



Steamer Enterprise.





Portion of the Coalinga Field, Fresno County, California, Showing the Celebrated Blue Goose Well in the Foreground.

## THE COALINGA FIELD.

### The Future of This District Looks Very Promising.

#### Both the Standard and the Union Will Soon Have Pipe Lines and Increased Tankage in This Field—Beginning of New Development Work.

The future of the great Coalinga oil field never looked as promising as it does today.

Although a great deal of oil is taken every month from the Coalinga field, the output is practically limited on account of the lack of transportation facilities afforded by the Southern Pacific railroad. Up to the present time every barrel of oil that has been taken from this field has gone over the rails of the Southern Pacific company, and it has been found impossible to ob-

tain from the company tank cars sufficient to meet the constantly increasing demand for the Coalinga oil.

The oil from this field is valuable in a three fold way. First: It is greatly in demand for gas making purposes. Much of the oil obtained in this field has peculiar characteristics which make it superior to all other oils used in making gas. Secondly: It is in demand for refining purposes, it having been practically demon-

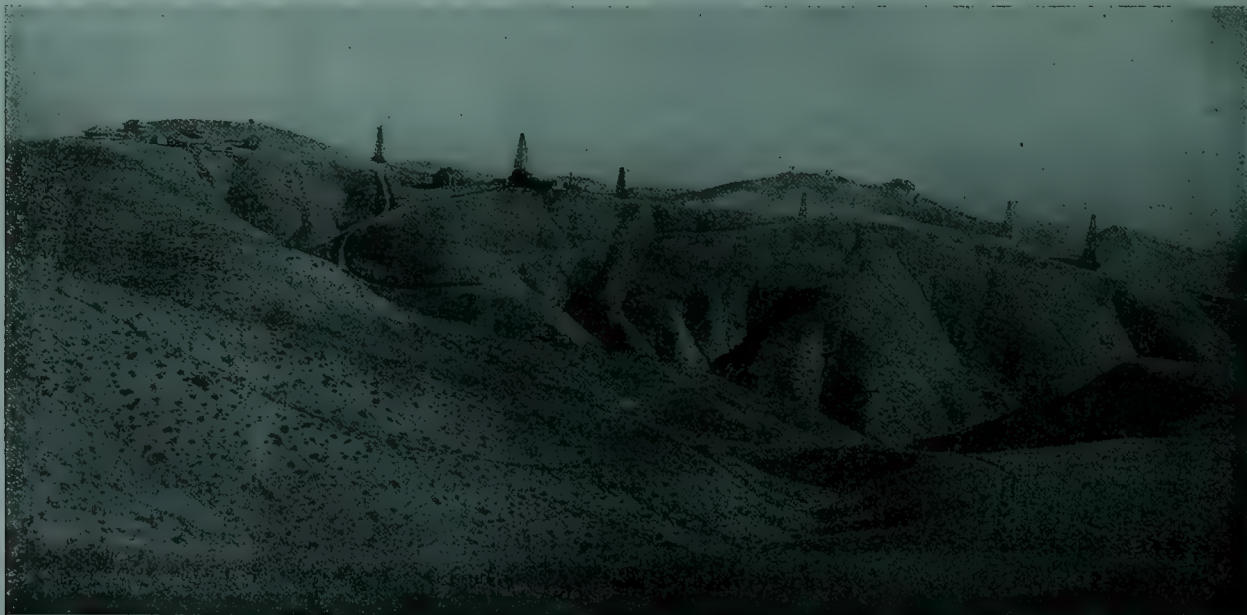
strated that the oil from this field, if properly handled, is well adapted for making benzine, gasoline and the several grades of kerosene. Thirdly: The heavy oil produced in the field is one of the best fuel oils offered on the market.

In 1901 the field produced 74,000 barrels. Although there were in the field seventy-four producing wells, oil was taken from forty-one, and of these forty-one wells scarcely a dozen were kept constantly on the pump, the others being pumped only as their oil could be utilized. The average daily yield last year was only about 230 barrels a day, which is only a fractional part of what the field is able to produce. The field at the present time is fully able to produce 1,500,000 barrels of oil a year, and this total yield could easily be doubled with six months or even less.

There are at present in the Coalinga field proper twenty-three oil companies which have producing wells. These are as follows:

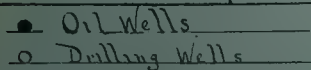
Name of Company.	Location	Nc. of Wells
Chanslor & Canfield.....	17, 19-15	6
Coalinga.....	20, 19-15	10
Home.....	20, 19-15	7
Cala. Oil Fields, Ltd.....	21, 19-15	3
Cala. Oil Fields, Ltd.....	27, 19-15	8
Sauer Dough.....	22, 19-15	1
Caribou.....	22, 19-15	3
Fauna.....	28, 19-15	2
Hanford.....	28, 19-15	2
Independence.....	28, 19-15	7
Twenty-Eight.....	28, 19-15	5
Oil City Petroleum.....	28, 19-15	5
Producers Guaranteed.....	31, 19-15	2
Etna.....	30, 19-15	1
Confidence.....	31, 19-15	3
Maine State.....	31, 19-15	3
Commercial.....	31, 19-15	1
El Capitan.....	31, 19-15	2
Phila. & S. F.....	36, 19-14	2
Fresno & S. F.....	1, 20-14	2
Mercantile Crude.....	6, 20-15	2
York Coalinga.....	6, 20-15	2
S. F. Crude.....	6, 20-15	1
Esperanza.....	6, 20-15	1
St. Paul-Fresno.....	23, 20-14	1
(24) Total.....		82

The Union Oil company, which already has considerable tankage in the field and a small pipe-line to the railway, is seriously contemplating the building of a pipe-line over the Coast Range, traversing the Fresno-San Benito oil districts and finding its outlet at the harbor



Portion of the Coalinga Oil District, Fresno County, California, Showing the Camp of the California Oil Fields, Limited.





of Moss Landing in Monterey county. It is an established fact that the Union Oil company has taken the preparatory steps which probably will result in the construction of this line during 1903. The rapidly increasing business of this company and the fact that it requires at least twice the amount of oil that it did a year ago, and that its requirements are increasing more rapidly from month to month makes it evident that the Union Oil company must, as soon as possible, obtain a pipe-line to the coast which will enable it to fill its tank steamers and sailing vessels with fuel oil such as can be obtained in the Coalinga field.

The great pipe-line of the Standard Oil company from Bakersfield to Point Richmond is now laid in the San Joaquin valley, distant only eighteen miles from the Coalinga field. The Standard has already commenced the erection of an immense oil-storage plant on the land of the California Oil Fields, Limited, and when this plant is completed, if not before, a pipe-line will undoubtedly be laid connecting this plant with the main pipe-line from Bakersfield to the bay.

There are now in the Coalinga field proper eighty-two producing wells. It is safe to say that by the close of the summer months this number will have increased to over one hundred, and, that while the present yield is less than 250 barrels a day, that in six months the output of the field will exceed 1,500 barrels a day.



# WELLS OF VENTURA COUNTY.

**Many of These are the Oldest and Best Wells in the State.**

**Over 250 Producing Wells Yielding a High Gravity Oil—This District Presents Great Opportunities for Further Development.**

By J. B. McCloskey.

When the history of the oil fields of Ventura county is written, it will be a revelation to many to know that there is such a great extent of well defined oil land within its boundary.

The main oil belt extends practically across the county from east to west, and on it most of the wells have been drilled. Also, both north and south of this belt is some very extensive territory, also very well defined, both by surface indications and developments.

Beginning on the west end of the main belt on the north slope, and extending east to the Santa Paula Canyon, are situated the wells of the Olga Ventura Company, Union Oil Company, Sobra Vista Company, Whidden Doble Company, Bard Oil and Asphalt Company, Westlake Oil Company, and the Capitol Crude Oil Company.

On the south slope are the wells of the Elesw Oil Company, Burrow's and Sons, Union Oil Company, Farrell and Soule, Green Oil Company, and Slocum Oil Company.

East from the Santa Paula Canyon, are the O'Hara wells, and those of the Pure Oil Company, and Empire Oil Company.

Then comes the Big Sespe District.

Up the Sespe Canyon are located the wells of the Big Sespe Oil Company, Union Consolidated Oil Company and Sespe Canyon Oil Company. East from the Sespe Canyon are the Union Oil Company's wells, known as the Kentuck wells, California wells, Four Forks wells, and Tar Creek wells. Extending north and northwest from the Tar Creek wells is a great extent of undeveloped oil territory with well defined, and very regular oil strata, and which will some day be dotted over with oil derricks, and which will produce an immense quantity of oil of a high grade, with long life to the wells, as this has been the history of developments so far in the Big Sespe District. In fact, long life is characteristic of most of the wells of Ventura county.

With its great variety of formations, and stratifications, the Big Sespe District is extremely interesting from a geological stand-point. East of the Tar Creek wells is a divide that separates the Tar Creek wells from the Modelo wells situated on Piru Canyon watershed, and west of the mouth of the Piru Canyon are the wells of the Piru Land Company, and west of these wells in the Hopper Canyon are the Buckhorn Oil Company wells, and the wells of the Fortuna Oil Company. Across the river and a few miles east of the town of Piru, in the Tapa Canyon are the Tapa wells. West from the Tapa wells are the wells of the Eureka Oil Company, and the Union Oil Company wells in Torrey Canyon. The Torrey Canyon wells have been, and are yet great producers of oil; in fact, they are among the "banner" wells of Ventura county.



O'Hara Wells near Santa Paula, Ventura County.

West from the Torrey Canyon wells are the wells of the Union Oil Company, known as the Bardsdale wells, and the wells of the Patterson Oil Company, and Bardsdale Crude Oil Company. South of Santa Paula about twenty miles are the Calleguas wells, also be-

longing to the Union Oil Company.

All of these properties are producers, and one would judge from the number of them, that Ventura county must be drilled full of holes, but such is not the case. In fact, the oil fields of Ventura county are but little more than prospected, considering the extent of the known field, not to speak of her possible untested territory.

There are at least 250 finished wells in the county, and they will average in depth, about 1,000 feet.

The average cost of drilling is a hard matter to arrive at, as conditions differ so much in the different districts, as well as the difference in management of the different companies. Poor management and inexperienced labor in the drilling field, is sure to make an expensive well; while under able management, and with skilled drillers, wells have been drilled 1,000 feet in this field, for less than one dollar per foot, while many have cost five dollars per foot and upward; but I believe it reasonable to say that three dollars per

to the ocean at Ventura, where there is extensive tankage, or to a shipping point by rail.

The pipe line system of the Union Oil Company, is the most extensive and complete of any company in California, reaching almost the entire oil field, and as it is a gravity system, it is comparatively inexpensive to operate. There are 22 miles of 4-inch line, and 16 miles of 3-inch, both together forming the main line to the ocean, and there are over 100 miles of 2-inch lines leading into it.

Besides the Union Oil Company's pipe-line, the Capitol Crude Oil Company has a line from their wells, 7 miles north of Santa Paula to their own receiving and storage tanks at the railroad, and the Empire Oil Company has 6 miles of pipe-line, the terminus of both lines being at Santa Paula, where they have their own loading rack to fill the tank cars.

There is also a pipe-line from the wells in Hopper Canyon to tankage at Buckhorn station, and the Modelo Oil Company also owns its own pipe-line from their wells to Piru station.

Altogether there are about 175 miles of pipe-line in the county, and about 150 miles of a telephone system, used exclusively by the different oil companies.

There are about 150,000 barrels of storage and stock tanks, besides more or less smaller tankage at the different wells.

Santa Paula is the principle distributing point for the oil fields, and there are the shops of the California Tool Co. and the Santa Paula Oil Tool Co., where everything needed in the oil business is kept in stock, and where all repair work can be done at very short notice. This is a very important feature in the developing of an oil field, to be close to a base of supplies, and well-equipped shops where first-class work is turned out.

There seems to be a wide-spread misapprehension among oil investors, in regard to Ventura County. Many of them are under the impression that what lands are not owned by the Union Oil Company are not worth investigating, but this is not the case. It is true the Union Oil Company owns thousands of acres of good oil land, but they do not own all of it. There is still a vast acreage outside of the Union Oil Company's holdings, and besides, what the Union owns they are justly entitled to, for were it not for their early pioneer work in the oil business, Ventura County in particular, and the State of California in general, would not be near as well developed along oil lines, as it is today.

Then there is the long life of the wells in this county to be taken into consideration. The old Scott wells in the Santa Paula canyon, now operated by the Slocum Oil Company, were drilled in the early 70's and have been pumped continuously and are still producing. The same is true of some of the wells drilled by the Union Oil Company in the Adams canyon in 1888, while the Kentuck wells, California wells and Tar-creek wells are all old producers. No. 1 well in Tar-creek was drilled over 15 years ago, and is still among the producers of that remarkable district. No. 1 well on the O'Hara property is still producing, although it is only 60 feet deep, and was drilled in 1887, and there are many others in the county.

These are only a few of the advantages of the Ventura County oil fields. The ups and downs of the oil business have been many, but every indication points to a steady raise in prices, and with the rapidly increasing demand for oil, there is no reasonable doubt but that the raise will be permanent.

The oil producers are in some respects like the farmers. They won't stick together. If they did, there would not be any oil selling at 15 cents per barrel, with its only competitor, coal, selling at from five to seven dollars per ton. As long as the producers won't combine their interests and keep the market steady, it is a good thing for them, and the oil business in general, that some one with both unlimited capital and experience in the business, like the Union Oil Company, and the Standard Oil Company, does come in and straighten out the tangle; and the oil business in California will be all the better for the advent of the Standard Oil Company.

J. B. McCloskey.

Santa Paula, Cal., December 20, 1902.



Bard and Capital Crude Wells, near Santa Paula, Ventura County.



## WHITTIER OIL DISTRICT.

### An Oil Region That Produces a Good Grade of Refining Oil.

### A Rich Oil District Supplied With Pipe-Lines and Abundant Tankage, and Which Presents Great Opportunities for Further Development.

By W. A. Smith.

The development of the Whittier oil fields has been similar to that of most other California fields of recent date.

In 1888, the Pickering Land and Water Company which owned, at that time, a vast tract of land, and which colonized Whittier, made several attempts to get oil. They believed it was there from brea beds and seepages which were to be found all through the hills, and even made three attempts to get the fluid. The wells were all drilled with crude tools, and consequently were all crooked. The deepest well was about 800 feet. Some oil was found, but not in paying quantities. The contractor, in a fit of inebriety, shot them and all chance to go deeper was lost.

There was at an early day also some development in Chandler canyon, but the wells were all shallow, and not very productive.

In 1895, Messrs. Neuer, Lacy and Stone prospected the hills, and secured from the Pickering Land and Water Co., a lease of 2,700 acres of hill land, and founded the Central Oil Co., which at once began development work. They got their first well in '96, and have kept steadily at work ever since, having at this time over 30 producing wells averaging about 1,000 feet in depth and with a production of 18,000 barrels per month.

This was the pioneer company, after it came the Home, a local organization, which commenced work in 1897, and now has 15 producing wells, averaging about 1,400 feet in depth, with a production of about 10,000 barrels per month.

The Whittier Crude, Turner, Fidelity and Warner companies came along in about the order named.

The wells of the Whittier Crude, five in number, are about 1,400 feet deep on an average, with about 3,000 barrels

production; the Fidelity's about the same depth with 2,000 production from three wells; the Warner Co. has six producing wells, averaging about 1,200 feet deep with a production of 8,000 barrels per month.

The Murphy Oil Co. has 10 wells which have been drilled to an average of over 2,200 feet, and they have the largest production in the field—over 32,000 barrels per month. Three of their wells flow and the oil is of light product.

The New England and Raymond Companies have oil, but particulars are not attainable at this writing.

All the Whittier wells are in the range of the Puente hills and on the well defined line extending from Summerland on the north down through Newhall and Los Angeles. A few miles to the east is the property of the Puente Oil Co., which has been producing for 15 years, and has over 60 producing wells at present.

sive, but it would seem that the resources of this field have not been touched as yet.

There are two pipe lines from this field to Los Nietos, three miles away at the junction of the Southern Pacific and Santa Fe, both the Murphy and Central companies having tankage and loading facilities there, and from this point alone, over 200 cars were shipped last month. The Whittier Crude and Home companies have pipe lines to the Southern Pacific tracks at Whittier.

The tankage in this field will exceed 150,000 barrels. The Murphy company have the largest, a steel, 40,000 barrel tank, on their property.

The situation is much brighter than a few months ago. There is a better demand at an advanced price, and developments are commencing again, several strings having been put on last week.

Whittier oil runs from 18 to 23 grav-



Murphy and Central Wells at Whittier.



Fidelity, Home, Turner and Whittier Crude Wells, at Whittier, Cal.

per month production. The Turner's four productive wells average about 1,000 feet, with about 3,000 barrels

and on end, and drilling is very expensive. The Whittier field is a hard proposition, the formation is badly broken,

ity, and much of it is sold to refineries.

It is interesting to note the success of the Murphy company, and the depth attained. These are largely due to Wm. Plotts, the manager of the company. Mr. Plotts is an experienced oil man, and difficulties seem to hamper him very little. He has patented many devices for overcoming the peculiar conditions found here, and to these inventions and his gray matter is due his company's production. His latest invention is a method of packing wells to make them flow more freely.

While the Whittier field is not the most productive field in the State, its possibilities are exceedingly great, and the field could easily produce many times the present amount of production if it was sufficiently developed.

The quality of the oil is far above the average of California crude, and the price obtained makes a fifty barrel well exceedingly valuable.

W. A. SMITH.

Whittier, Cal., Dec. 16, 1902.

The National Tube company recently announced a reduction of 10 percent in the price of merchant pipe. It would have been very gratifying to the oil men if the big corporation had made the reduction general, and apply also to line pipe, tubing and casing. All through the depression the price of pipe, such as is used in the oil fields, remained at a fixed point.

It is reported that the Italian Government intend to make a large purchase of Texas oil. A group of French financiers, having business relations with Italy, have commissioned Mr. Laing Malcolmson of London to negotiate with Texas producers on this subject.



## THE MIDWAY OIL FIELD.

### The Coming Great Oil District of California.

Its Future Possibilities in the Way of Production Just Beginning to Be Appreciated—Much Development Work Is Promised.

By Hon. C. A. Barlow.

The fact is beginning to be recognized that the west side of Kern county is the greatest and most prominent oil field in the world. The oil land is laid down in regular formation, outcroppings along the edge of the foothills demonstrating perfectly the trend of the strike. The sand has the coarse, pebbly character that is recognized by oil experts as the ideal reservoir from which to draw a long continued supply of good quality oil, and more nearly resembles the famous oil sand of Pennsylvania than is found in any other field. This coarse sand forms a natural filter, keeping back any finer particles that may be in it, and relieving the pumps of the continual sanding that prevails in many localities.

The general strike is nearly northwest and southeast, with a dip of about 30° to the northeast.

Beginning at Sunset, the development has shown that the oil belt has a width of from one and one-half to two miles, and extends northwest through Midway and McKittrick to Templor. Also, though still undeveloped, the outcroppings and general formation show that in all probability the same belt continues on through the Canary Springs and Devil's Den districts to Coalinga, making what time will demonstrate to be a continuous oil belt nearly one hundred miles long.

The heart of this great field so far as developed is the Midway. Here is found all the signs and characteristics of an ideal oil formation. All are laid down in perfect order. The boundaries can be traced by the experienced eye with perfect regularity, and the finding of oil is no longer a matter of speculation, but simply a business proposition. Shrewd investors have seen these conditions, and have been quietly picking up good territory for some time. The question of transportation has hitherto been the unsolved problem. Recent surveys by three different railroad companies, several projected pipe-lines, and the assured fact of the immediate building of the Midland Pacific railroad from Midway through Sunset to Port Harford, affording cheap transportation from the heart of the oil fields to one of the best harbors on the coast, are signs of the nearby solution of the vexed problem, and the operators in this field are beginning to believe that the merited reward of their keen foresight and patient endeavors will soon be at hand.

Mr. C. F. Lufkin, field expert of the Standard Oil company, recent-

ly visited the oil fields of Kern county in the interests of his company. The views of such a specialist on the value of oil territories, who has visited all the oil fields in the world, given in a recent interview in the Bakersfield Echo may be interesting in this connection.

"Speaking of the outlook here Mr. Lufkin said that the three fields, McKittrick, Midway and Sunset, showed as much promise

Maricopa, Monarch, Occidental, United Crude, Pacific, Tremont, J. B. & B., Federal Crude (formerly Colorado-California), Beaver, Stratton, Lucky Boy and California Fortune. At the latter wells there is over 50,000 barrels of oil in one of the largest reservoirs in the county. There are more than two dozen flowing wells in this field, and today the wells in the south Midway and Sunset field number over 140. With pipe-lines or railroad facilities in this field will come an era of development such as California has never seen since the palmy days of 1900 in the Kern River field.

### THE STANDARD ROCK OIL

This Asphalt Company Is Now Actively Filling Contracts.

Major R. A. Falkenberg, President and Manager of the Standard Rock Oil and Asphaltum and Refining company, expects his company very shortly to be in a position where it will be able to fill the orders for its product which have been coming in very freely lately. These orders could not be filled for the simple reason the company was not in a position to incur the large and necessary expenses which must be incurred before the company could secure a sufficient amount of proper raw material and the proper appliances for handling it.

Last year the company acted upon the

search after the underlying deposit of liquid asphalt from which had oozed the bitumen which had formed the bituminous rock.

Six holes were bored in different places and at depths ranging from 50 to 150 feet. In each hole a deposit of pure liquid asphaltum was obtained which raised up in each hole nearly to the surface.

A shaft eight by four will be excavated to a depth of 150 feet, or perhaps 300 feet if necessary; steam pipes will be placed in the hole for the purpose of heating the liquid asphaltum, thus thinning it out so that it can be pumped without difficulty into the stills.

Some time since Major Falkenberg sent samples of his asphalt to England of the B grade, and received in return an



Maj. R. A. Falkenberg.

initial order for asphalt of this grade to be sent by steamer direct to London. This order is now being filled, and if it is satisfactory to the London purchaser another order aggregating 1,000 tons a year will be received.

The company has been handicapped by lack of sufficient funds to continue work as it should be continued, and the policy of the company has been never to go in debt, but to pay as it goes.

It is said the company has received recently some new blood and the needed capital, and will now go ahead rapidly and on broader lines.

The company has excellent property, good prospects and deserves, and will certainly have, great success.

The company is now establishing eastern agencies for the sale of stock and also for the sale of its asphalt. Mr. W. J. Curtis of Portland, Or., has been appointed assistant secretary. He is highly efficient, and has charge of the northern and northeastern agencies.

It is a matter of regret that Major Falkenberg, the efficient manager of the company, has lately been a great sufferer from rheumatism and neuralgia, brought on largely from overwork and exposure at the company's plant at Sargent's. It is to be hoped that his severe indisposition will not prevent his giving his continued personal attention to the affairs of the company, but at any rate the affairs of the company will go on uninterruptedly, and will follow the lines laid down by the management.

### Good-bye to the Loomis.

After all these years of faithfulness Ventura is to lose the oil steamer, George Loomis. That craft made her last trip this week, and in future will carry refined oil from San Francisco to the various coast ports.

It is expected that the new oil boat to run between this port and Honolulu with crude oil will soon be in port. She took on her initial trip from San Francisco to the islands a cargo of oil, and in future will make the trip direct from Ventura to Honolulu. She is due any day now.

The Loomis and her strenuous whistle will be missed, as will her weekly visits. It is stated that the Loomis has carried enough oil since she's been in the business to float all the fleets in the world.—Ventura Free Press.

### New Oil Company.

The Eastern Consolidated Oil company has filed articles of incorporation. Principal place of business, Portland, Me. Directors: D. N. Morgan, E. Cady and O. L. Ackerley. Capital stock, \$5,000,000.

### California Oil Refineries.

There are thirty-two oil refineries in the State, varying in size and capacity from the twenty-barrel plant of the Knapp Refining company at Half Moon Bay to the mammoth refinery of the Pacific Coast Oil company at Point Richmond.

The Pacific Coast Oil company, the Union Oil company of California, and the Puente Oil company manufacture refined oils for illuminants, naphthas, and other products, while most of the other refineries are mainly confined to the manufacture of asphalt, distillates, and lubricating oils.

Their locations are as follows:

Bay and tributary region around San Francisco....	7
In the San Joaquin Valley.....	8
Region along the coast.....	4
City of Los Angeles.....	12
At Chino.....	1

Total..... 32

The total still capacity of all the refineries is approximately 31,575 barrels.

as any fields he had ever visited. He found the tracings more broken here than in either of the other two fields, but he gave twenty years as the shortest duration of the life of the field."

The recent strike by the Altoona Midway company of a 400-barrel well of 21° gravity oil has proven the theory long held by the most observant that the Midway oil would prove to be the best in the county. This well is on section 25, 32-23, and adjoins the famous "Croesus" property on the same section, and the "Mascot" property, which is on section 26, 32-23. These two last mentioned properties belong to Spellacy & Stroud, two of the best known and most practical oil men in the state.

To the northwest from these wells many good properties have been developed and the wells of Chanslor & Canfield and the Midway Oil company of Oregon on section 8, 32-23, which are about 400 barrels capacity and 20° gravity oil, simply prove the theory that the belt is continuous and that the oil sands are similar. Southeast of the group of wells referred to in the vicinity of 25, 32-23 the strike is proven continuous, until a couple of miles southeast of Jewett & Blodgett development on section 13, 11-24, S. B. M.

It would be superfluous to mention all of the wells in this stretch of proven territory, but among the most prominent are the Queen, Alameda Limited, Crown,

advice of its vice-president, who claimed to have a practical knowledge of asphalt refining, and expended several thousand dollars in putting several tunnels into the asphalt hills, and in excavating and placing on the dump a great many hundred tons of bituminous rock for the purpose of refining from it the asphalt which it contained. Four large and modern stills of the finest marine steel were purchased and placed in position at great expense and labor.

After all this had been accomplished actual and repeated tests demonstrated that, although the bituminous rock could be refined and a very fine quality of asphalt obtained, the process was too lengthy and expensive to be profitable. There was so much refuse material in the bituminous rock of clay, sand, dirt, pebbles and other matter of vegetable and mineral nature, that the refining process required numerous repetitions in order to produce a product of high grade, and consequently the product when obtained could not be sold at a profit if sold at prevailing prices for high class asphalt.

Having seen the mistake, and aware of the great and unnecessary expense in which the company had been involved President Falkenberg ceased experimenting further with the bituminous rock proposition; and began a thorough



## OIL USED IN GAS-MAKING.

### A Process Perfected that Lessens Materially the Cost of Manufacture.

#### As a Result Many Small Towns in California Hitherto Unable to Afford Gas Plants are Now Generally Installing Them.

By B. S. Pedersen.

Pertinent to every gas company on the coast is the question of material to be used in the manufacture of illuminating and fuel gas. In this age of keen electrical competition and small margin of profits it is a serious one, with failure as the price to those who are negligent.

Until within the last ten years very little gas was made by any but the time-tried method of distilling bituminous coal in retorts, a method which furnished a gas of good quality, and several by-products all of which brought a fair price to the gas company.

Electricity becoming a factor in the lighting business, the gas companies were compelled, for their own protection, to adopt cheaper and more modern methods of gas manufacture. The companies in the larger cities early installed water-gas apparatus, the larger capacity of the apparatus per square foot of floor area and decreased labor per thousand feet manufactured appealing to them as well as the adaptability of the apparatus to the daily output of gas. Thus, with an apparatus rated one million feet daily capacity nearly as great a degree of economy could be obtained while it was at half its daily capacity as at full load, whereas coal gas benches are required to be run at full capacity that they may be economically operated.

By running the two in conjunction, the gas companies were enabled to

care for fluctuations of the output, making their minimum output on the coal gas benches and then making the gas required in addition on the water-gas apparatus.

The smaller companies were not slow in following the lead of the larger ones as they were benefited proportionately to a greater extent. They could fill their holders with gas and then shut down the plant until the holders were to be refilled, using the operator meanwhile for other work. There was no wasted time, and the apparatus required no attention and caused no expense while it was idle, while with coal-gas benches constant attention was necessary, and continual expense was incurred whether gas was being made or not.

In water gas manufacture anthracite coal is generally used for fuel, though a good quality of coke does just as well.

A standard water-gas apparatus consists of either two or three cylindrical shells, lined with fire-brick, and designate generator and superheater where two shells are used and generator, carburetter and superheater where the three shell setting is used, the latter being invariably used wherever a daily capacity of over 50,000 cubic feet is required.

The generator besides being lined with fire brick is fitted with grate bars and cleaning doors after the manner of vertical boilers and is also supplied

with an air blast and steam connection under the grates.

The superheater and the carburetter are both brick-lined, but instead of grates are supplied with fire brick arches upon which is placed loose fire brick checker fashion. Both are supplied with air blast and steam and oil connections.

The generator in the two shell sets is connected to the superheater by a goose connection reaching from the upper part of the generator to the lower part of the superheater under the arch.

The usual seal and scrubbers, etc., are common to either style of setting. In the manufacture of water gas anthracite coal is generally used for fuel, though a coke of good quality answers the purpose in every respect. The coal is placed in the generator and a blast applied until the fuel is heated to a high degree, incandescence being the point desired. The gases accruing from the blast pass to the superheater, where an additional blast is admitted, and the gas ignited when it serves the purpose of heating up that shell and the bricks placed upon the arch.

When the proper heat has been obtained for gas making, the blast is shut off and the stack valve closed. Steam is admitted under the grates in the generator which, passing up through the body of fuel is decomposed into its constituent gases—hydrogen and oxygen. The oxygen combines with the carbon of the fuel, forming carbonic oxide and some carbonic acid gas, the hydrogen passing with the above gases as free hydrogen.

This combination of gases passes into the superheater, where a jet of oil is injected above the lower arch and vaporized. This oil is used to enrich the water-gas which in itself has little illuminating power. The water-gas and oil vapor combines in the superheater, and is there thoroughly fixed in the passage up the shell and around the heated checker brick, becoming the commercial water-gas in its raw state. This is further washed, scrubbed, condensed, and purified before being sent to the consumer.

This method of gas manufacture while very satisfactory in comparison with coal gas, because of the scarcity of coal, and the prices asked for it, as

well as the price and difficulty in obtaining the lighter oils used for enriching water-gas, became a matter of questionable merit when the increased cost of steam and loss of the smaller companies seriously contemplated closing down their works.

Upon the discovery of the oil fields in this State, the question arose as to whether it was not possible to enrich the water-gas with oil, a suggestion which was made to some of the gas companies, and several of them tried to do so with different degrees of success, none however finding the heavy oil a satisfactory substitute for lighter oil as an enricher.

Having complete water-gas works, the companies could hardly afford new installations, and approached the manufacturers of apparatus for help.

With seemingly an economical plan at hand, the natural thought was how to take advantage of it to the exclusion of all other fuel either hard or liquid, and use it in the apparatus already installed by the gas companies.

The relief of the smaller companies being the first object, a two shell standard water-gas setting was selected for the experiments.

The changes necessary in the water-gas machine, so as to make it adaptable to the manufacture of oil gas were found to be detail ones for the purpose of facilitating combustion in the apparatus of the heavy oil, and affording rapid and direct connections through the apparatus.

The goose neck connection between the generator and superheater was removed and a straight connection made between the two shells near the bottom.

The grates were also removed, and a fire-brick arch sprung in its place with loose fire brick placed on it as in the superheater. A blast connection was made near the top of the generator and an oil burner and steam jet was placed at the extreme top. The superheater was left as in the water-gas setting, a rearrangement of the checker brick being all that was required.

One reason for making these changes was to make use of all heating space possible in the machine which could readily be seen could better be obtained by injecting oil in the top of the generator, allowing it to pass down through the machine, being thoroughly pas-



Interior of Oil Gas Works at Oroville.





Wells of the Monarch Oil Company, in 2, 11-24, Sunset District.

sified in the passage by coming in contact with the heated bricks, and then passing into and up through the superheater where it would be fixed or made permanent as a gas.

Had we tried to use the water-gas apparatus without changing it, the oil would have been injected into the lower part of the generator where it would have collected and made a pool of oil and pitch, as it would not have been possible to force the oil up through the machine.

It was the intention to make a water-gas as with hard fuel, using the particles of carbon in the form of lamp black which had deposited upon the bricks in heating up the machine to form carbonic oxide as is the water-gas machine. The spraying of oil upon the highly heated bricks was also counted on to aid in the water-gas manufacture.

While this theory looked very plausible on paper, we were doomed to disappointment in the practice.

The first run demonstrated that very little if any water-gas was made, the action being more in the nature of a conversion of oil into marsh gas at the first part of the run, and then as the bricks cooled off, a gradual increase in the illuminating gas or rather oil vapor which mixed with the first part of the run made an average gas of good candle power.

Having ample superheating surface, no trouble was encountered with condensation.

An analysis of the gas proved our revised conclusion correct as to the gas made. The gas was found to contain by volume about 30 per cent. of marsh gas, 50 per cent. of hydrogen, 9 per cent. illuminants, and only 5 per cent. of carbonic oxide, the balance being nitrogen, carbonic acid and oxygen being a gas that was well supplied with all the requirements of a first-class commercial, and favorably comparable to any gas made under any method.

Some trouble was anticipated in the handling of the heavy 14 degree oil, and precautions were taken to eliminate all known difficulties. We were

pleasantly surprised to note that no trouble of any kind was traceable to this end of the works, and we are firm believers that the oil has not yet been discovered that we cannot handle.

While we thought all care had also been taken to eliminate the source of all failures of oil gas machinery which was the lamp black trouble, it was ascertained after one day's run that we had not altogether done so. The deflection was however immediately remedied by some small changes in the seal and scrubber and that bugaboo was laid at rest for all time.

Because of the great volume of hydrogen gas in the finished product, it was found necessary to carry a little higher candle power than would be required with coal or water-gas, but with this small addition of oil the gas was not distinguishable from either coal or water-gas. The flame was fairly large in an open tip and intensely white, combining it seemed the good qualities of both coal and water-gas.

While the above is written largely for the benefit of those companies already having water-gas apparatus, showing what may be done to relieve the strain on their purse as well as mind; it may also show those contemplating gas works installations in smaller cities that it can be done, and as far as the question of making oil gas is concerned, it is only a matter of choosing the best apparatus under the conditions prevailing.

The number and shape of the apparatus bears very little upon the question of choice; but one thing must be well looked into, and that is the apparatus for the adjustment and equalizing of heats in the machine.

It is most important that every shell be provided with blast arrangement, as the adjustment cannot be made at one point for the entire apparatus, and any attempt to do so will invariably result in excess of lamp black, or possibly the stopping up of pipes with pitch.

Again, the construction of seal and scrubbers must be so that there is no possibility of lamp black or any other

substance but gas passing the last named apparatus. Failure to heed this warning will result in more stoppages than any set of men can take care of.

In laying out a new works, ample holder room should be provided, as it is in the large make that the real economy is apparent. Preferably two holders should be used—a small relief or primary holder into which the gas passes directly from the apparatus and a secondary or storage holder from which the town is supplied, the gas passing from the first through the purifiers into the second.

Having the relief holder of 10,000 cubic feet capacity and the storage holder of 20,000 cubic feet capacity would give ample storage for a good run, and on a run of 30,000 cubic feet, full economy can be reached with an oil gas apparatus.

Taking lesson from the water-gas men who were compelled to change to oil gas, the prospective investor should secure an apparatus that, should the occasion require, could change from oil-gas to water-gas, and the necessary connections should be bought with the apparatus and stored for possible use.

To give an idea of the comparative economy at the present time of water and oil gas manufacture, using prevailing prices for fuel and oil, the following is submitted, an arbitrary standard of works being one of 10,000 cubic feet, daily send out, which I think will be a fair average through the State, excluding the large cities, of course.

#### COST OF MATERIAL—WATER GAS.

Forty-five pounds of anthracite coal per thousand feet manufactured at \$10.00 per ton, 22½ cents.

Fifteen pounds of boiler fuel, 7½ cents.

Four and one-half gallons of Coal-oil per thousand feet, made for enriching at 3 cents per gallon, 23½ cents.

Total material per one thousand feet of gas manufactured, 53½ cents.

#### OIL-GAS.

Twelve gallons of crude oil at 2 cents

per gallon, 24 cents.

This amount includes boiler fuel and oil for heating up the apparatus for the first thousand.

It can readily be seen that in order for water-gas to become dominant again, the price of crude oil must at least double in price, the difference in favor of oil gas being 29 cents per thousand feet of gas made.

As the other expenses of the two systems are alike, no notice is taken of them, and the question of coal gas is hardly liable to ever again be considered seriously by the smaller companies in the State.

Oil gas being a demonstrated success there is apt to be a rush towards that class of investments and gas properties will again be classed as the best possible investment for surplus moneys.

With modern methods and able management, a great many towns in this State that have hitherto not enjoyed the blessings of gas will secure it, and the gas man may well look forward to a wonderful activity and continued prosperity.

B. S. PEDERSEN.

137 Montgomery street,  
San Francisco, Cal.

The Sunshine Paraffine Oil company has been organized at Tucson, Arizona, to develop 4,000 acres of land in the Pinal country. L. V. Navarro, Mexican consul at Tucson, is president of the company, and W. W. Robinson, a mining engineer from San Francisco, is general manager. The company is capitalized at \$1,000,000.

The test well drilled in on the Pryor farm by the Carter Oil company at the head of Straight Fork, two miles in advance of the Big Lime development on Clear Fork, Monroe county, O., is good for forty barrels a day.





Legend

Red dots	Redwood trees
Blue dots	Pine
Black dots	Black oak
White dots	White oak
Green dots	Green oak

— 1902 —



gushing of the oil. In Mr. Hick-ey's opinion, the well flowed 150 barrels in twenty-four hours, and, when it is perforated, that it will go three times that much. Nothing more will be done with the well until after the holidays.

The Webfoot company, pioneer of the Cuyama, is now down about 700 feet with its 11½ casing. Owing to cold weather, which prevents the flow of water through the pipes until two o'clock in the afternoon, the work is apt to be abandoned until next spring.

The Sunset Center is reported to have decided to drill seven wells during the coming year. This is the company which recently turned down an offer of twenty-seven cents at the railroad terminus, equivalent to twenty-five cents at the well.

The California Combined Oil company has let a contract for a well on section 7, 28-28 on land adjoining the Edgar. The contractors are Z. L. Phelps & Co. of Los Angeles, and they propose to use the wire cable, claiming it is possible to drill much more rapidly with such than with the rope cable. The contract calls for a depth of 1,500 feet if necessary.

The Standard has been offering inducements of late to the companies lying along the eastern side of section 25, 28-27, which if accepted will end in the laying of a pipe-line up the canyon which runs through that region. The price to be paid for the improvement is the signing of contracts at a comparatively low figure, and, so far, consent has not been obtained.

There was not any very great

cessation of work in the oil fields during the holiday season. There is a steady increase of new work and many of the owners in the petroleum districts have yet to complete their assessment work. Preparations for much new development work have been made and operations will commence shortly after the first of the new year.

The estimated output of the Kern River field is 25,000 barrels a day. About 20,000 barrels are shipped out and the balance is used by local consumers and stored by the Standard. Some 330 wells are being pumped, a greater number than for a year past. The wells, naturally, have dropped down from their first capacity and the time is not far distant, it is believed, when drilling will again be undertaken generally.

According to an advertisement printed in an eastern oil publication, the Dabney company of McKittrick has land valued at \$1,000,000; seventeen wells, cash on hand and bills receivable amounting to \$47,042.77 and a surplus and undivided profits to the extent of \$120,111.46. Its liabilities are less than \$5,000. It has paid ten consecutive monthly dividends of one percent of the par value of the stock.

The Lion Oil company has contracted to furnish the Pacific Refining company of Alameda with all the oil needed for its entire operations. The Lion has only one well of unknown productiveness, but it has eighty acres of land in the heart of the Sunset district, and oil of high gravity. The contract price is 23 cents and

the contract period six months. Other Sunset producers expect an advance in the price of 30 cents in a few weeks.

The California Kern Oil company has twenty-five acres in 8, 29-28 in Kern River and also 640 of undeveloped territory back of Sunset. The company has one good producing well, and will shortly have several others, as it is prepared to immediately commence drilling operations. The officers of the company are well-known citizens of Indiana, the vice-president being the lieutenant-governor of that State, and the secretary being ex-secretary of the State, the treasurer being city attorney of Indianapolis, and the president being F. J. Carman, one of the best known oil and mining men of California. The stock is held largely in Indiana, and large blocks of it are also held in Germany. The company expects to be soon producing large quantities of oil.

It is a flattering commentary upon the worth of our fields that capital in Texas, in the neighborhood of Beaumont, should be seeking investment here. Yet such is the fact, says the Californian. An operator who has handled some of the largest propositions in Kern county oil land deals is now in communication with Texans who are desirous of getting in on good things in Kern River, Midway, Sunset, or McKittrick. In Texas is what was recently supposed to be the greatest oil territory in the world, and yet men who are now there, who know all about the value of that district, choose to put their money

into California property. Several deals are now on which, if they go forward to completion, will end in the acquirements of lands and leases in this locality by operators who, in so buying, acknowledge that the fields of the West are of more worth than those of the South.

LOS ANGELES.

The Murphy Oil company at Whittier started its second string of tools last week.

George Robinson has the contract for drilling a well for the Central Oil company at Whittier.

The Home Oil company started another string of tools last week, making three strings now running by this company at Whittier. The new well is No. 16 and is just south of No. 15.

The Whittier Crude Oil company whose tools have been idle for the past six weeks started again this week. Frampton Bros., contractors, state that it is the purpose of the company to make this a test well, going as deep as possible. The location is on top of the hill north of the other wells of this country.

By a lease that now is effective, the terms of which are well guarded, the Los Angeles field of the Consolidated Crude Oil company has been leased to Allen Craig. The office of the company has been removed from the Frost building to specially erected premises on the corner of College and Adobe streets, where J. W. McMichael, the secretary, can be found. The tenor of the lease does not in any way effect the identity of the company. Major Bulwer, the president of the com-

# HALFMOON BAY OIL FIELD.

## Most Valuable Oil on Pacific Coast.

There is a refinery at Halfmoon Bay that buys the oil and pays \$1.50 per barrel for the oil at the well. This refinery makes THE HIGHEST GRADE GASOLINE, BENZINE AND KEROSENE OF ANY REFINERY ON THE PACIFIC COAST.

**\$89 buys 100 Shares in each of four companies, or 400 shares full-paid, non-assessable stock, par value \$400**

1. The advance to par of one stock out of four will return in cash **112 percent** on the investment.
2. The advance to par of two stocks out of four will return in cash **225 percent** on the investment.
3. The advance to par of three stocks out of four will return in cash **337 percent** on the investment.
4. The advance to par of all four stocks will return in cash **450 percent** on the investment.

Stockholders of all four companies protected by a Trust Fund of 900,000 shares held in trust by us.

The following is taken from a letter written by C. T. Dean, Secretary of the California Petroleum Miners' Association, to the London, England, Petroleum Review:

"There have been some discoveries lately on the coast at Halfmoon Bay, San Mateo County, adjacent to San Francisco, of a very high grade oil, 52° Baume. Although we have an unlimited supply of low grade fuel oil, we have comparatively little as yet of a high grade for illuminant purposes: It is gradually dawning on capital that they are letting the greatest opportunity that has ever come to this State slip into comparatively few hands, and I can see them in a few years kicking themselves because they did not take advantage of it. Money is plenty and there is no reason except lack of knowledge (which is easily obtainable) why they do not invest, not in any speculative venture, but in actually proven lands, which can be obtained to day for from \$500 to \$5,000 per acre, and which in a few years will be worth five times that price."

## Trust Fund—The Investor Protected by a Stock Pool.

A Trust Fund has been perfected which is of the highest importance. The stock of each one of the companies is **guaranteed by the other three**. Investors are protected by trust-fund stocks contributed to a pool by each company pro rata. This pool aggregates 900,000 shares. We act as trustee for this pooled stock. If either one of the companies should be unsuccessful, the stock therein will be taken up and the pooled stock of the successful companies will be substituted therefor on a basis which will **protect the investor from loss**. Thus if three companies out of the four were unsuccessful and only one became a dividend-payer the investment would still yield **12½ percent profit**, with such dividends as were thereafter received in addition. It is not expected that any of the four companies will be unsuccessful, but, from the investor's standpoint the Trust Fund is, nevertheless, a most desirable feature.

THE DEBENTURE SURETY COMPANY now offers stock for sale in four strong companies operating in the HALFMOON BAY OIL FIELDS. One company is pumping 52° gravity oil, selling it at \$1.75 per barrel at the well; another company drilling, 1,150 feet, with 200 feet of oil in the hole, enormous gas pressure, every indication of a first-class well; third company's well down 700 feet, passed through several prolific oil strata; fourth company has very valuable asset, and land holdings, drilling rig, and interest in royalties from developing companies. All these facts are explained in detail in our printed matter, the following being a partial Index of the subjects treated:

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Our location is 35 miles from San Francisco with tidewater transportation.

THREE REQUISITES FOR A SUCCESSFUL OIL PROPOSITION:

**TRANSPORTATION, MARKET, PRICE.**

Halfmoon Bay has all these, with a high grade oil, 50 to 55 gravity. Investigate this proposition.

Write us for maps, pictures, literature, etc.

**THE DEBENTURE SURETY COMPANY,**  
(INCORPORATED.)

230 Bush St., Mills Bldg.,  
San Francisco, Calif.



pany, who is in Europe, will not return for several months.

## MARIN.

The active work being carried on near the town of Bolinas, in Marin county, by the Bolinas Bay Oil company, promises the development of a new oil district near San Francisco, as Bolinas Bay is only about twelve miles from this city by water. The company holds over 1,200 acres of land, on which croppings of oil sand and seepages appear in many places. Two wells have been drilled—No. 1, to a depth of 2,000 feet, in which oil was found at 740 feet, 1,320 feet, and at 1,660 feet, to the extent of from five to fourteen barrels per day, being of light gravity, from 24° to 34°. Well No. 2, now being drilled, is down a little over 1,600 feet. Tracings of oil have appeared, and the formation indicates that a body of oil may soon be reached. At a recent meeting of the board of directors it was decided to drill a third well. The officers of the company are: E. A. Bruguere, president; Wm. McCracken, vice-president; LeRoy G. Harvey, secretary and manager. Office, 520 Montgomery street, San Francisco.

## NEVADA.

The Rocky Mountain Oil company has raised \$10,000 to continue its drilling operations near Elko. Oil indications are abundant.

## ORANGE.

Well 34 on the Santa Fe lease is now down 2,600 feet, and it is said to be the deepest hole in the Fullerton field. The company is looking for light oil in this well.

At a reported price of \$50,000 Charles Victor Hall of Los Angeles has purchased from J. W. Hale 100 acres of unimproved land in La Habra valley, three miles from La Habra, Orange county. Owing to the favorable indications for oil in that section Mr. Hall, who is a pioneer in the oil industry, will proceed to develop. In the Orange county fields activity prevails, with thirty-two rigs now in operation. The best oil there is reported as selling at \$1.70 a barrel.

## SANTA BARBARA.

Well No. 11 on the Western Union came in last week Wednesday with a good strong flow of oil at a depth of 1,820 feet.

The Southern Pacific company has acquired title to a valuable piece of oil property heretofore a part of the Arellanes rancho, near Casmalia, in the northern section of Santa Barbara county, on the main line of the coast road. It is the intention of the company to drill for oil to be used for fuel purposes in the company's locomotives. It is understood that the Southern Pacific will begin operations at once.

The Pinal Oil company are running their pump regularly now during the daytime and producing 72 barrels per day. Of course by pumping day and night they could double this amount. A mammoth tank has been erected. Surveyors are at work marking out a line for a pipe-line, which, when completed, will enable the Pinal people to pump direct to the railroad. The ground is being gotten in readiness for well No. 2 and the derrick put in place. Operations will begin shortly.

The Brookshire company is disposing of its stock so rapidly that

operations will be under way before very long. The company owns its property, and being only three-quarters of a mile from the Pinal company, and in direct line with the famous Western Union property, there is every reason to believe that they will strike oil when they get started.

The Grasciosa Oil company, working on the Captain Harris rancho, is making slow progress. The well is now 2,180 feet deep with a 6 inch casing. The ground in which the drills are moving is of a sticky and caving nature. The drillers are therefore forced to proceed very slowly in order to protect the well from caving. There are heavy seepages from several strata already cut.

## SAN BENITO.

The Hamiltonian Oil company has commenced operations in the Vallecitos district. The property has been turned over to the Ashurst company of Stockton, which will continue the development of the company's holdings.

## VENTURA.

The Slocum company has just finished up a well that is good for twenty-five barrels per day.

The Sulphur Mountain Petroleum company are up against a fishing job, having lost two strings of tools in the hole.

The Ferndale Oil company's outfit was sold at sheriff's sale on the 12th inst. to the Union Well Supply company for \$587.30.

It is reported that the Merchants and Traders Oil company has struck a good well on the Burson lease near Bardsdale.

W. F. Robinson, who was appointed receiver for the Buckhorn Oil & Transportation company has begun to deepen one of the wells on the Buckhorn lease, with the expectation of increasing the production.

Thirteen hundred tank cars are owned by the Southern Pacific and Santa Fe railroads, the Standard Oil company, and a few more outside companies, carrying oil in California.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo.....	.30	.31
Aztec.....	.75	.85
Bear Flag.....	.08	.11
California Standard.....	.12	
Caribou.....		.95
Central Point Con.....	.68	
Chicago Crude.....		.25
Clairmont.....	.15	.20
Four.....	.57	.59
Hanford.....	98.00	
Home.....	3.00	3.05
Imperial.....	16.00	
Independence.....	.06	.08
Junction.....	.08	.09
Kern.....	3.80	
Kern River.....	8.25	9.00
Lion.....	.06	.07
Monarch of Arizona.....	.18	.19
Monte Cristo.....	1.27 1/2	
Occidental of West Va.....	.13	.14
Oil City Petroleum.....	.17	.18
Peerless.....	12.25	12.50
Reed Crude.....	.30	.31
S. F. & McKittrick.....	1.50	1.75
San Joaquin O. & D.....	7.00	
Sovereign.....	.26	.28
Sterling.....	1.62 1/2	
Thirty-three.....	8.00	8.50
Twenty-eight.....	1.50	1.60
Union.....	56.00	
United Petroleum.....	96.00	
West Shore.....	2.50	5.00
Wolverine.....	.45	

## LOS ANGELES.

Through the recent purchase by the Erkenbrecher syndicate of Los Angeles, a new field in this county, twelve miles west of Santa Monica, north of the Malibu ranch, will be explored for oil. About 4,000 acres have been secured by lease and purchase from F. H. Rindge. The ocean is distant about one mile from the land. It is understood that indications for light oil are noted that will make the field desirable. F. M. Elliott and W. H. Tonkin of the syndicate made the investigation and prepared the reports. Mr. Elliott says that ar-

rangements will be perfected as soon as possible to put rigs in the field. The property leased include the holdings of D. M. Bowers, G. L. Waring, J. A. Stanwood, G. S. Stanwood, S. S. Stanwood, T. H. Dudley, E. H. Henry, C. C. Deming, W. A. Deming, J. W. Henry, F. B. Marsh, M. C. Lichtenberger, H. E. Carter and J. G. Hoy.

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California Stock and Oil Exchange.

## Sylvain Solomon

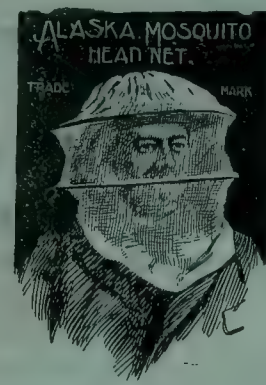
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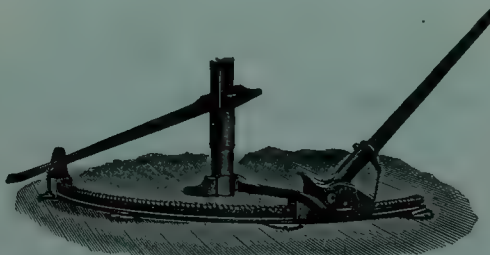
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Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

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**PERLESS OIL COMPANY**—ON DECEMBER 1, 1902, declared a dividend No. 10, of ten (10) cents per share, payable February 1, 1903. Books close January 20, 1903. The address of stockholder W. I. Taze is desired. GURDON BRADLEY, Assistant Secretary.

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Office—561 Parrott Building.  
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**STANDARD ROCK OIL COMPANY.**  
Capital.....\$500,000  
Treasury stock.....\$250,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 100 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
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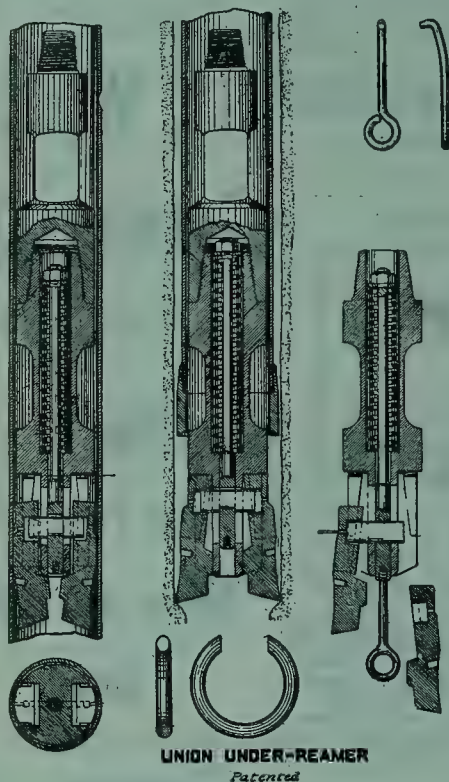
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 10.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 10, 1903.

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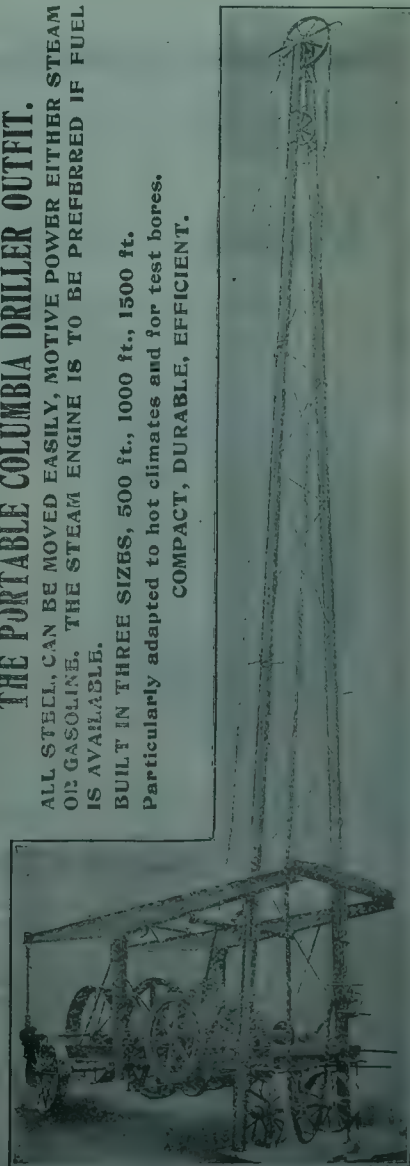
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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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# PACIFIC OIL REPORTER

VOL. 4, NO. 10.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 10, 1903.

PRICE, TEN CENTS.

## CALIFORNIA ASPHALT.

**Its Use in the Eastern States is Increasing Very Rapidly.**

**The California Product Fast Taking the Place of that From Trinidad, and Over 1,000 Miles of Eastern Streets Were Paved with It Last Year.**

Asphalt is an important product of the California oil fields. The estimated yield for the year 1902 is 26,000 tons, as against 21,634 tons for 1901; the value for 1902 at the average price of \$13 per ton was \$338,000; for 1901, at the prevailing price of \$14.47, was \$313,219.

Below is a table showing the amount and value of California's asphalt production from 1887 to 1902, both inclusive, as compiled from a bulletin issued by State Mineralogist Lewis R. Aubray.

securing all the asphaltum they want by treating oil at the refineries. Moreover there are more refineries, and more asphalt is being made at them than ever before.

The percentage of asphalt in California oil varies greatly. The largest percentage is found in the shallow wells in the southern part of Sunset. Samples obtained by Hugh Philipps for the Easton-Eldredge interests contained about 80 percent liquid fuel asphaltum

of other products than asphaltum unprofitable.

In no other part of the United States are there such large and valuable products of asphaltum as in California. The quality, after years of practical use and testing under all conditions, has been pronounced to be equal to, or better than, any other grade used in the market. In southern California, especially in Los Angeles, where bituminous rock was laid for many years, that material has not been admitted in the pavements for the past five years. In that city there are now several miles of asphaltum pavements, where the bituminous rock pavement has been taken up and replaced with asphaltum. Although laid for five years, and subjected to the wear of heavy traffic, these five miles of pavement have not cost one cent for repairs.

Refined asphaltum from California has been gaining a standing and reputation in the East, where it has to compete with Trinidad asphaltum as to quality and price. It has been shipped by rail at a carload rate of about \$12 a ton to either Chicago, New York, Boston, or any city east of the Mississippi. Now the various refining interests of the State

Asphaltum is far superior to bituminous rock for paving purposes. The latter has been laid pretty generally in the larger cities of California. This material comes chiefly from deposits in Santa Cruz and San Luis Obispo counties. In the early history of bituminous rock, when material used for street pavements was extracted from the outer ledges of the deposit, contractors were able to get a very good and even grade. It was fine in texture and could be relied upon for producing a fairly good pavement—much better than the material proved to be after the deposits were penetrated, where the ledges and deposits were in an uncertain condition and it was impossible for contractors to tell what class of material they were getting. The greatest trouble is the uncertainty. A contractor can not tell when he lays it down what the resulting pavement will be. The asphaltum which is in the sand is very uneven in quality and the sands are unevenly distributed. If it were possible to get a thousand tons, say, of bituminous rock of the same or uniform composition, it would be possible to make a pavement of uniform tenacity. It is impossible.



Refinery of Jewett & Blodgett at Sunset.

YEAR.	Tons.	Value.	Per ton.
1887.....	4,000	\$16,000	\$4.00
1888.....	3,100	39,500	12.74
1889.....	3,000	30,000	10.00
1890.....	3,000	30,000	10.00
1891.....	4,000	40,000	10.00
1892.....	7,550	75,500	10.00
1893.....	9,150	161,250	17.62
1894.....	11,698	233,800	19.98
1895.....	25,525	170,500	6.67
1896.....	20,914	362,590	17.24
1897.....	22,697	404,350	13.40
1898.....	25,690	482,175	18.77
1899.....	15,060	308,130	20.45
1900.....	12,575	253,950	20.19
1901.....	21,364	313,219	14.47
Totals.....	189,593	\$2,920,964	\$15.41
1902.....	26,000	\$338,000	\$13.00

Of the 1901 product of 21,364 tons, 9,324 tons were from asphalt mines and 12,043 tons from the refining of oil; or 45.5 percent from the mines and 54.5 percent from the oil wells. For the year 1902, for which accurate figures are not yet at hand, the proportion from the refineries will show a large increase. In fact one of the biggest asphalt mines has been closed entirely, and the owners are

or 60 percent of a D grade product. The south Sunset fields have a distinct lead over the other districts in this respect. The heavy percentage is due to the nearness of the oil to the surface, the volatile elements having been evaporated. There is the disadvantage that the wells are small producers and the oil is hard to handle. In the northern part of the Sunset field the wells are much deeper, the oils lighter and the percentage of asphaltum smaller.

In the Kern county fields the petroleum is heavy, carrying forty-five to fifty percent of asphaltum. The light oils of Coalinga carry as low as twenty-five per cent.

January 1, 1902, there were eleven refineries in the State; January 1, 1903, there were thirty-two refineries, nearly every one of which is operated to save from oil the important by-product of asphaltum. Two large refineries, one at Sunset, the other in Kern county, have been operated for asphalt only, since there was no market available for the distillates and the kerosene. The lack of cheap transportation made shipments

have come to an agreement to maintain prices, they have combined and will appoint one selling agent in New York, and make shipments by sea in shipload lots, reducing the charges for freight about one-half, and adding greatly to their profits.

There is no class of pavement that has increased so rapidly in the favorable estimation of the people. The area of surface covered last year in the United States with an asphaltum pavement will exceed any other class of pavement by 300 percent. There has been laid or under contract last year one thousand miles of roadway to be paved with asphaltum, aggregating a cost of \$100,000,000.

California asphaltum has been largely used in this great work. New York City has up to the present time laid 3,000,000 square feet of pavements with California asphalt; Brooklyn, 1,800,000 square feet; Buffalo, 700,000 square feet; Pittsburg, 700,000 square feet. Other cities are using this material, and it is no longer an experiment, but has proven to be one of the most successful street-paving materials that has ever been offered.

Refined asphaltum is always almost absolutely pure—at least 97 or 98 per cent. If properly treated in refining—and California refineries have learned how to treat it properly—there is no material that will or can surpass it for making a smooth, hard surface that will wear well and stand the extremes of heat and cold.

The market for the California product is widening and the demand for it is increasing. In New York Trinidad asphalt is quoted at \$35 a ton and the California product at \$32—the difference of \$3 a ton not being due to the inferior quality of the California material but to the reputation Trinidad has had for years.

In fact, California asphaltum is superior to that from the island of Trinidad. Trinidad ships about 62 per cent asphalt, while much of the supply from California runs over 90 per cent. The California product is brought to a proper consistency by adding natural asphalt, while the Trinidad has added to it "still bottoms," or residues of refining the paraffine base of Eastern oils. Our prepared asphalt is better and more lasting. In the Trinidad product the proportion of petroleum exceeds that of asphaltene, while in the California it is just the reverse, giving the latter a tenacity, durability and elasticity not possessed by the former.



## A VALUABLE MINE.

### A Gold Property that Will Soon be Paying Big Dividends.

**It is Located in Tuolumne County, California, Directly on the Great Deposit of Gold Ore Known as the "Mother Lode."**

Throughout the southern portion of Tuolumne county there is great activity in gold mining, partly due to the splendid showing made in the various prosperous and operating mines, and partly due to the fact that the mines are at last in direct connection by railroad with the outside world, so reducing

Angels, following closely the direct line of the lode, and bringing into close communication some of the principal mining properties of California.

Among the properties benefited by the completion of this new railroad are the Rawhide, Melones and Norweigan mines, all located directly upon or very close to

today making most rapid strides in development.

The property of the Norweigan Consolidated Mining company comprises about forty acres of patented ground, with all surface buildings and equipment necessary for operation, to a depth of 2,000 feet, though the present main shaft has only reached a level of 525 feet.

The mine has been operating for the past five years, and in development has encountered uniformly fine bodies of high grade milling ore with frequent shoots of ore running to high values that have attracted the attention of all the big operators along the lode, and have given the mine its reputation among the rich and profitable producers of gold.

The Norweigan mine is in operation and is well warranted by the bodies of ore already uncovered and ready to be knocked down, and in the extensive improvements and additions being made to give increased capacity for milling and other treatment of ore after it has been brought to the surface. The present stamp mill has proved inadequate for the work of stamping out the free gold values, and the mine is in shape to handle and keep busy a mill with capacity of twenty-five stamps, with the expectation of further increase during the next year of development work underground.

In the mine to-day there are many hundreds of tons of ore ready to be knocked down, loaded into the cars and hoisted to the mill, and this ore is being taken out as the present milling capacity can handle it, but in the meantime work in the main shaft is being continued to carry it immediately to a point about 250 feet below the present lowest levels, where a junction will be met of the three best producing quartz veins shown in the upper levels, with the assurance that at this junction will be found a

concentration of values as well as a consolidation in volume of the three quartz bodies.

This has been the experience of the successful mines in the vicinity of the Norwegian along the main Mother Lode.

The Norwegian mine is complete for operation to a depth of 2,000 feet, and the milling capacity will be increased as the heavy bodies of ore are uncovered. Compressed air and machine drills are used in all the work underground, reducing the cost of mining to the minimum.

The Norwegian mine is well known as having surface improvements and facilities equal to any. Power is supplied entirely by water which is carried through ditches to the central reservoir, located about 500 feet directly above the collar of the main shaft, and the supply is ample for operation without any help from steam or electricity throughout the entire year. The recently completed branch of the Sierra Railway to Angels passes within 250 feet of the property and all passenger and freight trains stop regularly at a point very close to the Norwegian company's office, affording exceptional facilities for handling supplies and timber for the mine as well as for the ore and concentrates shipped out to the smelters.

In the Bell Mine, about one-half mile from the Norwegian, a "strike" has recently been made of a fine body of high-grade milling ore, and, in consequence thereof, extensive surface improvements are being made. To the west of the Norwegian the Crystalline Mining company has a force of men at work driving their new tunnel, and generally along the Mother Lode there is great activity in all work of development. At the Melones Mine the new mill operating sixty stamps is busy night and day, grinding out the gold values, and the



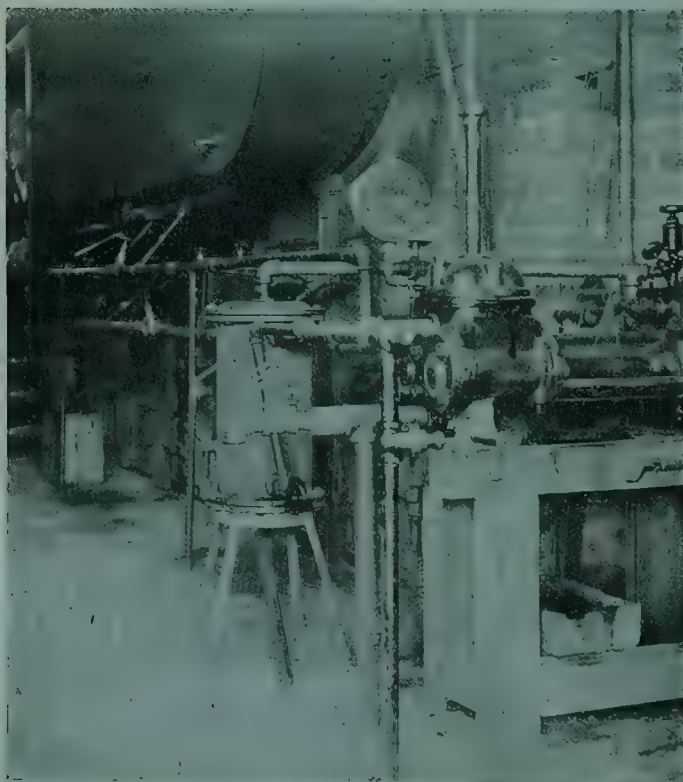
Plant of a Gold Mine on the Mother Lode where Oil is used for fuel.

of supplying the mines, and also in encouraging the shipment to smelters of concentrates and of any high grade or refractory ores.

It is only within the past sixty days that the Mother Lode Mountain railway has been in operation from Jamestown to greatly the cost operating in the expense

the recently completed line.

The Norweigan mine is located about 150 miles easterly from the City of San Francisco in the county of Tuolumne, California, directly on the most famous mineral belt of the West, the gold producing Mother Lode of California, and in the particular section of the state that is



An Oil-Burning Plant of a Gold Mine on the Mother Lode.

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present great capacity is still further to be increased. Already there is on the ground equipment of stamp batteries to increase the capacity by an additional fifty stamps, and the concrete work is in position for these. This famous mine has one of the best and largest plants for ore treatment upon the Pacific coast.

The Norwegian Mine has been owned and operated by San Francisco capital from the commencement of work upon the ground, and has proved its value by a regular output of the precious metal.

That gold mining in Tuolumne county is generally prospering at this time is made plain from the reports issued by the supervisors of the county, giving in detail a resume of the year's mining development and from reports of the California State Mining Bureau.

In the latter exhaustive reports, with reference to the gold production since 1850 in California, the following statement is made: "What has been done is but an introductory chapter of its history." Certainly the annually increasing gold output seems to fully warrant that statement.

### Combine Against Standard

The Bavarian Chambers of Commerce have laid a joint petition before the ministry, asking that Bavaria combine with the other German kingdoms and principalities against the Standard Oil company, which seeks to monopolize the kerosene trade.

The petitioners demand that the royal railway be forbidden to establish oil tanks for the benefit of any trust supplying the consumer direct, near their tracks. All other German chambers of commerce are invited to co-operate with the Bavarians.

The Standard Oil company lately invaded the city of Rogenberg, bought up the wholesalers' contracts with Roumanian oil wells, and then established a house to house delivery system, underselling everybody else 1½ cents per quart.

### In Texas.

Right Hon. James Roche, formerly a member of the British parliament, representing County Kerry, Ireland, in the house of commons for eighteen years, is at the head of a syndicate of English capitalists who, it is stated, have secured an option on the oil field at Sour Lake, they having spent more than \$50,000 in its development in the two months the field has been under their control. Mr. Roche was interested in the fields of Baku, Russia.

Subscribe for the PACIFIC OIL REPORTER.

## COAL AND OIL CONSUMPTION.

### In the Former Fuel Consumption Decreases But Increases in the Latter in 1902.

#### The Total Figures Show a Marvellous Increase in the Total Amount of Fuel Consumed in California for Manufacturing Purposes.

The report of J. W. Harrison on the consumption of fuel coal and oil in 1902 has just been published. It contains the following:

The consumption of coal this year shows a shrinkage of 389,187 tons below that of 1901, as can be seen by referring to the figures below. This is no indication of the amount of fuel called for, as there has been a daily average of 18,000 barrels of oil drawn from Kern county alone during the year, which is actually less than one-half the total amount of oil sent to market from the entire State. With this immense output for the year, it is singular that so much coal has been called into requisition. Never in the history of California have we consumed for steam and domestic purposes over 1,900,000 tons, whereas this year our fuel requirements foot up over twice this amount. There cannot be a more infallible index of prosperity than fuel, hence 1902 must be chronicled as the banner year for California.

Factories of all characters are running full time, and the major portion of them are now in arrears with their orders. This signifies an immense consumption of crude materials of every denomination, a number of which has heretofore come to us in the manufactured shape, simply because our highest cost fuel precluded home manufacture. Thousands of skilled and ordinary laborers now find continuous employment who would be seeking positions if unaided by low-priced fuel. Everything that moves, or is made, emanates from fuel; the cheaper same is, the greater the latitude is controlled for an outlet for the products of our metals and our woods, which are manifold. To meet the oil competition, the prices of coal

have been marked down, so that profits are finessed very closely. For household uses coal values have been well sustained, and will remain so, until some safe method may be devised where oil can declare itself a substitute. Hundreds of patents have been issued, each specifying that the main obstacle had been overcome, viz., the elimination of smell and smoke, without any increase of danger. They appear well, theoretically on paper, but are practically delusive up to date.

For the moment coal producers feel confident of maintaining their position, hence a difference of \$1.50 to \$2.00 per ton exists between first-class steam and domestic grades. It is singular that the imports of Australian and English show no decrease this year, notwithstanding they are handicapped with 67 cents per ton duty, and have fuel oil to compete with.

The various sources from which we have derived our coal supplies are as follows:

	1899 Tons	1900 Tons	1901 Tons	1902 Tons
Brit. Columbia	623,133	766,917	710,330	591,732
Australia.....	139,333	178,563	175,959	197,328
English and Welsh.....	93,263	54,099	52,270	95,621
Scotch.....	none	none	none	3,600
East'n (Cumberland and Anthracite)	38,951	17,319	27,370	24,133
Seattle (Wn.)	271,694	250,590	240,574	165,237
Tacoma (Wn.)	355,756	418,052	433,817	209,358
Mnt. Diablo, Coos Bay and 'resla.	189,507	160,915	143,318	111,209
Japan, and Rocky Mts. by rail.....	28,390	42,673	51,147	47,380
Total.....	1,740,027	1,889,128	1,834,785	1,445,598

To secure a complete statement of the entire coal consumption of California, I have been obliged to include deliveries at Port Los Angeles and San Diego by water, which have been added in the above sources of supply. The total amount received by water at those ports foot up 126,356 tons.

FUEL OIL.—The total production of oil for California for 1902,

from figures carefully computed by the PACIFIC OIL REPORTER, shows the annual output to be over 13,000,000 barrels, equal to over three million tons of coal. Up to date the oil discoverers have not proved to be the benefitted parties, the consumers have purchased their requirements at figures leaving a very small margin, if any, to the producers, and have made large contracts for future deliveries at absurdly low figures. There is now a marked change of values, and purchasers will find they must pay more for their oil fuel. It is now drifting into the hands of those who will prove more capable managers, and who have the necessary capital to enable them to await making sales only when they are profitable.

The recent purchase of the control of the Beaumont wells by the Standard Oil company, and the immediate doubling of oil values, shows what may be the probable future of the same interests here, when the pipe-lines are running. So far the discoverers and producers have not received the profits to which they were justly entitled.

COKE.—The total quantity received by water foots up 64,916 tons, as against 34,533 tons last year. Nearly 50 percent of this has been shipped from Great Britain, 18,000 tons from Belgium and Germany, and the balance from British Columbia and Australia. Considerable has been received by rail, but as this has been delivered direct to interior consumers it is impossible to approximate these figures.

PIG IRON.—The total imports by water aggregate 28,768 tons, of this 26,852 tons are foreign, 75 percent of which were shipped from England, and the balance from Scotland and Belgium. The total amount of pig iron received here last year only figured up 8,478 tons, hence it is very gratifying to see the marked increase this year, evidencing that our factories must have had a greatly improved business.

The above figures show an exceptionally profitable year in the manufacturing line, and a marked assurance that there will be no diminution the coming year. So far we have had a seasonable rainfall, promising us a favorable grain and fruit harvest; these, combined with our large oil refineries, now in course of construction, should show us bountiful returns for the ensuing year.

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STORES



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY, JANUARY 10, 1903

The use of crude petroleum for fuel is not in any sense an experiment.

For twenty years and more it has been in general use in foreign countries, especially in Russia, where the use of oil for fuel began as far back as 1870, and so successful and profitable has its use been found that to-day there is not a steamer on the Caspian sea, nor on the Volga; not a locomotive running on the entire Southern Russia railway system, nor hardly a boiler of that section of Russia, which is not operated by the use of liquid fuel. In fact, the use of such fuel is so rapidly extending throughout Russia and has been found to so materially benefit the industries of the country that according to late reports the consumption of oil for fuel now amounts to something like 9,000,000 tons per annum.

Nor is Russia the only country where the advantages of the new fuel have been recognized. The Hamburg-American Steamship company has fitted four steamers for liquid fuel, and the North German Lloyd two. Dutch mail and cargo steamers in the Far East are now employing liquid fuel regularly. The Shell Transport and Trading company have no less than twenty large steamers using oil fuel, and some of them are of 10,000 tons net carrying capacity. The Kensington, of the Red Star Line, has been the first passenger ship to cross the Atlantic with oil fuel.

While crude oil has been so generally used for fuel that its use has passed the experimental stage particularly in Russia, such is not the case on the Pacific coast. Here experiments, many of them

costly, are the rule rather than the exception.

There are now over one hundred steamers hailing from San Francisco burning oil. On these steamers there are almost as many methods of using oil as there are steamers. These steamers are continually trying experiments in the way of new burners, new atomizers, new heaters, etc. One steamer is reported to have tried six different burners, and it is not yet determined which is the best.

So far as we know not a single man or company claims to have adopted the system which is now generally adopted by the Russian steamers on the Caspian and the Volga, and the railway companies do not know wherein their systems differ from those in use on the Southern Russian railway system. It would seem that no attempt apparently has been made to profit from the twenty years' experience of Russian engineers, who probably by this time have brought their appliances to some degree of perfection. There is no doubt but that our inventors in many instances have tried experiments and obtained results at the expense of much time, labor and money, that could all have been avoided had they been better acquainted with the results obtained perhaps years ago in far away Russia.

The immunity from accident that has attended

Foreign Flash Tests for Fuel Oil the use of oil on

foreign steamships is probably due to wise restrictions prohibiting the burning of oil of low flashing point. In fact, it is claimed that where the oil is of a proper flashing point there have been virtually no serious accidents, notwithstanding its widespread and long-continued use.

In Russia the law prohibits the use and the exportation of liquid fuel of low flashing point, and no oil which flashes below 150° is permitted. In the United Kingdom Lloyd's Register originally required a flashing point of 200° Fahrenheit, which has since been reduced to 150°, while the German authorities have accepted as safe a minimum flashing point of 150° Fahrenheit. The governments of India and of Ceylon permit the importation of oil for liquid fuel purposes which has a flashing point of over 150° Fahrenheit, and fuel of 150° flashing point has been in constant use from four to five years in a large number of the Shell company's steamers, as well as in many Dutch steamers in the East Indies, with complete immunity from accident.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## DIVIDENDS IN SIGHT.

The Columbian Co.'s Refinery Now is in Full Operation.

Many times during the past year this paper had occasion to mention the progress of a very worthy enterprise, the Columbian Oil, Asphalt & Refining company, operating at Carpinteria, Santa Barbara county, California. This company was incorporated about a year ago, and has been carrying on in the meantime very extensive operations, opening up its property, and has been acquiring adjoining properties from time to time in view of controlling practically all the asphalt business in that district. Its most important acquisition was the famous Alcatraz Refining plant and its thirty-nine acre property, from which about \$1,000,000 worth of asphaltum has been taken out and refined. This deal was consummated a few months ago, and since then the Columbian company has been remodeling and equipping the plant throughout with modern appliances and now has it in successful operation, starting with a daily capacity of from 400 to 500 barrels, which capacity will be increased from time to time according to requirements up to at least 1,000 barrels daily.

The company now controls practically all the asphalt land in that district, and on account of the superior quality of the asphaltum, and the many by-products of great value which the refinery is now separating from it and putting into marketable form, the management claim that enormous earnings will be made, and the first quarterly dividend is expected to be declared now almost any time.

The company is very conservatively capitalized for an enterprise of such magnitude, the capital stock being only \$1,000,000, divided into shares of a par value of 10 cents each, fully paid and non-assessable. Three-quarters of the stock was placed in the treasury to be disposed of for the benefit of the company as needed from time to time.

The president of the company, Mr. Clarence W. Ayers, a prominent oil expert and oil operator, is giving his personal attention to the affairs of the company, as is also Mr. John R. Scupham, the treasurer and manager of the company, who is a prominent mining engineer of San Francisco. Associated with them are other well-known San Francisco business and professional men, making a very strong and thoroughly responsible enterprise. The financial affairs of the company were placed in the hands of the American Investment company, 2 Kilby street, Boston, Mass., who are acting as fiscal agents and have met with marked success in placing the company's treasury stock,

and the many hundred stockholders interested in the company are about to be rewarded with the first dividend, and we understand it will be the policy of the company to pay quarterly dividends thereafter.

On another page will be found an announcement of this enterprise by its fiscal agents, and in the advertisement is a very fine half tone of a part of the company's extensive refining plant, to which we call your special attention. The American Investment company who are handling the stock is a prominent brokerage house in Boston of many years' standing, and well-known and thoroughly reliable.

## A Profitable Concern.

The career of the Union Oil company of California illustrates how profitable a properly managed and permanent oil enterprise may become. The company was organized in November of 1890, and has paid dividends regularly every year since. Ninety-three dividends, amounting, in the aggregate to \$1,131,250, have been paid. In addition to these dividends, the company has invested, out of its surplus net earnings, approximately \$1,000,000 in plant and property. According to the statement made by the stockholders last June, the company has written off for the depreciation of property in the wear and tear of machinery, etc., the sum of \$1,045,465.42. This latter item has, of course, been added to somewhat since the date mentioned. Last year the capitalization was increased from \$5,000,000 to \$10,000,000, represented by 100,000 shares.

The Union Oil company in addition to being the largest producer of oil is the heaviest oil refining concern in the State, and the bulk of its profits undoubtedly come from the refining branch of its business.

## A Correction.

The president of the Peerless Oil company states that the PACIFIC OIL REPORTER was in error in stating in its issue of January 3 (last column, page 31), that Peerless dividends will be increased to twenty-five cents per share "by the first of April, if not before." He states that under the most favorable conditions such a result cannot be expected before July 1.

## The Pacific Underwriting and Trust Company.

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## A GREAT PAPER.

### The New Year's Edition of the Pacific Oil Reporter Well Received.

From All Sides Come Hearty Congratulations and Strongest Words of Praise for the Enterprise and Ability Displayed.

It is pleasant to work if the work is appreciated.

This applies to every branch of labor, and the work of the newspaper publisher is no exception.

To publish an edition such as was published last week by the PACIFIC OIL REPORTER means not only the outlay of a great deal of capital, but it means weeks of labor, a tireless quest for information and statistics from the various oil fields, and the collecting and arranging of the facts in such form as to make them both intelligible and interesting.

That the New Year's edition was well received by the public goes without saying. Everyone who read it was pleased, and most readers were also astonished at the amount of development work shown to have been accomplished in the different fields, and at the bright outlook ahead for the oil industry in 1903.

Although an edition of 20,000 copies was printed, enough it was thought to easily supply the expected demand, the sales have been so much larger than was anticipated that the edition is very nearly exhausted. The San Francisco News company, which supplies dealers all over the State, has twice duplicated its original order, and will probably need many more. The paper has sold freely in every oil field in the State, and next week Eastern orders will entirely exhaust the edition.

Below are given a few of the many complimentary notices and letters received in regard to the edition.

#### Of Marked Value to the Oil Industry.

SAN FRANCISCO, CAL., Jan. 3, 1903.

MR. W. B. WINN, Editor PACIFIC OIL REPORTER, 318 Pine St., City.

DEAR SIR: We have looked over with much interest the New Year's edition of the PACIFIC OIL REPORTER, and wish to congratulate you upon the excellent paper, and one which we believe will prove of marked value to the oil industry of California and the coast in general.

You are deserving of a great deal of credit for the work in behalf of the oil industry, which has proved such a boon to the Pacific coast in general, and, in our judgment, we are only just beginning to realize the benefits that it will prove to all interests.

Assuring you of our hearty approval and support, so far as we

can give it in the advancement of the work pertaining to the oil industry, and wishing you all the compliments of the season, we remain,

Yours very truly,

GEO. H. ISMON.

Pacific Coast Sales Agent, American Steel and Wire Co.

#### Very Able Number.

LOS ANGELES, CAL., Jan. 6, 1903.

MR. W. B. WINN, care of PACIFIC OIL REPORTER, 318 Pine St., San Francisco, Cal.

DEAR SIR: Accept my congratulations upon the very able number which you have given to the public. I am very much pleased with it, and believe that it will be of material benefit to all oil producers in the State.

Wishing you a happy and prosperous New Year,

Yours very truly,

EDW. STRASBURG, President Oil Storage and Transportation Co.

#### Most Valuable of Any Oil Paper.

SAN FRANCISCO, CAL., Jan. 3, 1903.

MR. W. B. WINN, Editor PACIFIC OIL REPORTER, San Francisco, Cal.

MY DEAR SIR: The California Petroleum Miners' Association wish to congratulate you on the issue of your journal of the New Year. It is in our opinion the most valuable issue of any oil paper within our knowledge in reference to the California industry. The articles are reliable and well written, and contain a mass of matter never before put forward in a single issue of any oil paper. We appreciate the difficulties you must have encountered in obtaining your facts, and above all in having them free from inaccuracies.

Yours very truly,

C. T. DEANE, Secretary.

#### Best Trade Paper Ever Issued.

FROM THE SAN FRANCISCO CHRONICLE.

The PACIFIC OIL REPORTER's special New Year's edition, issued yesterday, is the most creditable trade publication ever presented to the people of the coast, if not of the entire country. It is of fifty-two pages, printed on a fine quality of paper, thus presenting the numerous half-tone cuts of interesting scenes in the oil fields of California as clear as finished photographs.

The many oil fields are graphically described and interesting figures of the output of each, with the remarkable development of the industry, are given. In a true and carefully compiled table it is shown that the output from the 2,152 producing wells of twelve districts for the past year was 13,692,514 barrels, a daily average production of 37,513 barrels.

Owing to a lack of market and transportation facilities, 424 wells are capped. At the present time 138 wells are being drilled. The depths of the producing wells range from 200 feet at Summerland to 2,500 feet at Fullerton. No person interested in petroleum or its by-products should remain long without a copy of this number of the REPORTER.

#### RECEIVE NEW ENGINE.

University Will be Equipped for Testing Petroleum Fuels.

A highly important addition to the equipment of the University of California mechanical building is now being installed preparatory to opening new fields of investigation for the senior class in experimental engineering. The department has received a ten horsepower, two-cylinder Westinghouse gas engine to take the place of the old and long since discarded Otto engine, whose antiquated pattern and long use had rendered useless. The new machine will be used for testing purposes, and especially for taking up the investigation of the comparative efficiency of crude oil with gas or gasoline. A crude oil generator is now being made by the students under the direction of George E. Cox, the expert pattern-maker of the department. This will be used to generate gas from crude oil for the purposes of

supplying the motive power of the machine. The engine will be so piped that all three combustibles can be tried under the same conditions. Tests will be made for their efficiency under different conditions, such as varying loads and points of ignition, and various temperature of jacket water. These promise to be the first thorough experiments regarding the comparative efficiency of crude oil in gas engines, as nothing but desultory testing has ever been attempted heretofore. Charles C. Major, instructor in mechanical engineering, will have charge of this particular branch of the work.

#### The Louisiana Field.

Fifty Milwaukee capitalists, whose names are not to be divulged until the organization is completed, are forming an oil company for the development of the newly-discovered oil fields in Calcasieu parish, Louisiana. The new Eldorado adjoins the oil fields of the Standard Oil company

across the line in Texas, and includes about 20,000 acres of the same belt. Several flowing wells have already been sunk, and their product has been analyzed by City Chemist Fred Ruschhaupt and pronounced of about the same grade as the crude petroleum which the Standard is using.

#### He Took Out the Kinks.

George Simonds, the man who burst the bottoms out of oil wells with nitro-glycerine, shot a well near Battlesville, Indian territory, the other day that was a surprise to both himself and the natives. The hole was a little over 200 feet deep and one of those pretty curves in it which some drillers know how to make without the aid of a transit or a book of logarithms.

The place the hole turned off on a new tangent was in a stratum of marble, or what the Texans called granite marble. Mr. Simonds undertook to "get on to the curves" of that hole and to

blow all the crookedness out of it. He let down a charge of sixty quarts of nitro-glycerine, and when the squib was dropped the upheaval of earth, shale and marble which followed tore away part of the derrick and made a hole at the surface six feet across. An investigation proved that the hole was no longer crooked. It had become a crater.—Chanute (Kan.) Daily Sun.

#### Oil In New Brunswick.

In New Brunswick an oil basin has been found about 100 miles long, beginning within thirty miles of St John and extending northward. In this basin there are three strata of oil at varying depths, and the quality of the product has been declared to be almost equal to that of the high-grade fields of the United States.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### KERN

The Combined Oil company, on 7, 28-28, is down about 600 feet.

The Arcata is making fine progress with its first well on the northwest quarter of section 31, 32-24.

The famous Shamrock well on the southeast quarter of 4, 29-28 has surpassed all former records for flowing. For six days the well has kept up an unceasing flow, producing at least 1,000 barrels daily.

The total shipments of oil from McKittrick during the last four months have been as follows:

September.....	389
October.....	173
November.....	427
December.....	453

Lack of cars was the cause of the small number shipped in October, otherwise there has been a gradual increase. Twenty-nine cars was the largest number shipped in any one day, this happening two weeks ago.

The Kern River Oil company at McKittrick will increase the production of their wells to 1,500 bar-

rels daily. There are eleven finished wells on the lease, but only five have been producing any oil for some time. Work has been commenced to make them all producing, and there are prospects that the output will exceed expectations. Well No. 1 has been flowing nearly a month.

It was the discovery of oil that made Kern county famous. The Kern River district is the most productive of all the oil fields in the county. The other producing oil districts are Sunset, Midway and McKittrick. Land in these districts rose from a value of \$1.25 per acre to \$4,000, \$5,000 and even \$10,000 per acre. It produced more than 50 percent of all oil produced in the State last year.—S. F. Chronicle.

It is reported that Jewett & Blodgett will soon build a pipeline from Sunset north west as far as the California Fortune and Lucky Boy wells, and perhaps farther. This will take in a large number of the large producing companies such as the Sunset Diamond, New York, Lion, Tiger,

Sunset Center, Kern Sunset, Maricopa, Federal Crude, Superior, Occidental, Monarch, Obispo, Acme, Beaver, Stratton, etc. Tankage for 175,000 barrels is to be provided at Sunset. Contracts are now being closed up, and the line will be laid unless operators hold out for too high prices. It is said to be up to them.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

#### LOS ANGELES.

The Murphy Oil company at Whittier continues to send out lots of oil, having shipped over 150 car loads during December. Work on wells Nos. 11 and 12 of this company continues, the drill going down with a good deal of rapidity. This same company have just finished their 1,700-barrel tank at Los Nietos. This is their third loading tank at this station.

#### OREGON.

There is said to be quite an amount of activity in the Malheur county oil fields. Baker City people have had a gang of men at work there for some time doing \$100 worth of work on each claim held by them, and in the aggregate have expended \$3,000. The late Sol. Hirsch, of Portland, and the Hope brothers, bankers of Vale, some time ago provided

\$20,000 to put down the first well. Although their operations were conducted with the greatest secrecy, it is understood in the neighborhood that they have struck the first oil sand, which is an indication that they are liable to find what they are looking for. Those who have examined the Malheur fields claim that there are plenty of oil seep and gas there. Some time during the past year United States government geologists examined the ground, and on their report the section was withheld as an oil reserve. Experts from Pennsylvania, California and other places have visited and studied the district, and none yet have turned it down.

#### SAN BENITO.

At present in the Vallecitos there is considerable stir in oil matters, and indications point to a great deal of work being done within the next year. Four rigs are now drilling, and several more are getting ready to commence operations. This territory has been looked upon as one of the best prospective fields in the State, and, now that capital has become interested, the future of the Vallecitos as an oil-producing section is assured.

#### SAN BERNARDINO.

The San Bernardino Development company is a Chicago corporation, which controls, under (Coast Oil News continued on page 10.)

## INVESTIGATION MEANS INVESTMENT

By you in the

### Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY**

**470-471-472 Parrott Building**

**SAN FRANCISCO, CAL.**



## WITH POLE TOOLS.

### They Do Better Work in Canada Than the Cable System.

The boundaries of the oil field in Raleigh township have not, of course, been defined yet, but the Petrolea men have formed their opinion. They think that the field is bounded on the south by the lake and on the north by the middle road. The eastern boundary is made by a line drawn from Peter Jenner's farm, on the middle road, to Cedar Springs, and the western boundary by a line drawn from T. L. Pardo's, on the lake shore, to William Bump's farm, at the corner of the middle road and the four-rod road. Of course this is only conjecture, and until the ground has been filled as full of holes as a pepper-box the size and extent of the oil field will remain a mere conjecture.

On the Petrolea expert's judgment the field may be said to cover about 12,000 acres. It won't be long before a lot more is known about the field, as drilling operations on a large scale are commencing. Five drills are working now. The Imperial Oil company is erecting two more and the California and Ontario Oil company began erecting two drills to-day. One is being put up on the farm of J. Johns, 13th concession. Corney's drill is being put up on the Walker farm.

This is the first test well to be put down south of the gusher. Two drilling rigs were shipped from Petrolea alone for the Raleigh oil fields this week.

William McCrae, of Petrolea, is one of the men who are taking a very active interest in the Raleigh oil fields. He has been in the oil business since he was sixteen years old, and knows a good many things about oil. It may be said that Mr. McCrae is the biggest man in the oil business in the world. When you have seen him you can believe it. He weighs about a quarter of a ton. Mr. McCrae has just returned from the oil fields of Sumatra. He says that the oil fields there are good, but the country is a little warm. Coolies do all the work. Speaking of the two classes of drills, the cable and the pole, Mr. McCrae said:

"I have been in the drilling business for years and have used both kinds of drills. The pole drill is by far the best adapted to the soil of this part of the country. At Petrolea we drill 500 feet with a pole drill, shoot the well and put in the pump all in from four to seven days. Where there is a deep surface of clay, as here, the pole drill will work much more rapidly. With the pole drill we can go down the first 160 feet in three hours, while it took those Americans from Monday noon to Tuesday noon to sink a hole 140 feet with a cable drill. There is no

system that has ever been invented that will put down a well as cheaply as the Canadian system, where the conditions are the same as they are here. In the old days at Petrolea the cable drill was used altogether, but it was discarded and replaced by the pole drill. This latter rig is cheaper, faster, and more effective. Pole well drillers will drill a well down to a depth of 500 feet for twenty-four cents a foot, and find everything, while cable men consider from forty to forty-five cents cheap drilling with their rig. "I can tell you," continued the old Canadian oil well expert, "the American drillers can't tell the Canadians anything about drilling."—Chatham Planet.

## A PECULIAR WELL.

It is Productive But One Month in the Year.

There is an old well near Payne creek, six miles from Barboursville, Ky., which is a puzzle to the oil men of the country.

The well, which is now in the middle of the creek, flows regularly every November, but never at any other time of the year. During this month it flows at intervals, discharging great streams of oil, gas and salt water, and suddenly stops to flow no more until November comes around again.

This strange well was drilled in 1840, on the bank near Payne creek, by old settlers, who were after salt water, from which to obtain their salt. The machinery used at that date was of the crudest nature, yet the drillers succeeded in getting down 450 feet, when, to their astonishment and dismay, they struck an immense stream of oil, which flowed for days and weeks.

In the course of time the bed of the creek changed, until at this day, it flows over the top of the old well. Since then during every November the water over and around the hole boils up through the force of escaping gas.

As far back as the people in the neighborhood can recollect the well has made these annual eruptions. This year the disturbances came somewhat earlier than usual, attracting more than ordinary attention, owing, doubtless, to the fact that oil men are operating in that section of the country. At times during the last few days water and oil have been thrown up fully fifty feet.

## Oil in Indian Territory.

At 12 o'clock Thursday night (Dec. 11) the drillers struck the top of the oil sand at 1,317 feet, in the Phoenix well. After drilling two feet into the oil rock the tools were withdrawn and indications on the rope showed that the oil had risen about 150 feet in the well. Several barrels were then bailed out, showing a fine quality of light lubricating oil. The drill

was again lowered, and they are now about ten feet into the sand, and the oil growing stronger all the time. There is very little gas, and just enough to cause the well to flow when capped.

The well was first started in October, a year ago, and drilled to the first sand, where very little oil was found, although the production was estimated at about three barrels a day, and was the best grade found in the field. After the Indianola was drilled to the second sand this company decided to go on down with their well. Hibbs Bros. were given the contract and a new rig was constructed by them. They have proven to the Phoenix and all others their ability as drillers, and the company is satisfied that this is the best and only well entirely free from water in the field. This is the eighth well brought in and the third drilled to the second sand. So far not a dry well has been drilled, which proves that Red Fork has a brighter future than any field in the West.—Red Fork (I. T.) Derrick.

## Big Oil Deal.

The biggest oil deal since the Standard Oil company made a \$600,000 purchase, was made at Lima, O., December 23, when William L. Russell of Lima and Charles E. Russell of Laporte,

Ind., for English capitalists, made a deal involving \$517,500. The property comprises the leases and wells of the following companies: Morris, Shawnee, Thompson, Auglaize, Weisenmyer, Kerr, Spelacy & Jones, Kerr Closer & Van Cleve and J. B. Kerr & Co. This is an acreage of 6,500 with 277 wells producing nearly 20,000 barrels a month.

## Pacific States Mining and Investment Company.

Attends to all corporation matters.

Incorporates under laws of any state.

Good propositions wanted referring to mining, agricultural or industrial projects.

Takes over entire stock issues for sale.

Has agents, brokers or own offices in all principal cities of America and Europe.

Special facilities for furnishing French, Spanish or German reports and maps of mines and lands.

Gold bonds furnished to facilitate sale of stocks.

Stock issues underwritten on the American or London plan.

Correspondence solicited and careful attention paid to all inquiries.

Money loaned and interest bearing investments furnished.

Send for sample copy of the "Pacific States Investor," an up-to-date financial paper.

Address for all information, Pacific States Mining & Investment Co., 324-326 Post St., San Francisco, Cal.

## THE COLUMBIAN OIL, ASPHALT & REFINING CO.

CARPINTERIA, SANTA BARBARA COUNTY CALIFORNIA.

Capital Stock, \$1,000,000; Par Value of Shares, 10 Cents Each; Fully Paid and Non-Assessable. \$750,000 Worth in Stock in the Treasury.

### OFFICERS AND DIRECTORS:

President, CLARENCE W. AYERS, Oil Expert, Carpinteria, Cal.  
Secretary, HERBERT GATES, Electrical Engineer, Oakland, Cal.  
P. M. PARCELS, Attorney, Oakland, California.  
Vice-President, FRANK F. TITUS, Capitalist, Oakland, Cal.  
Treasurer, JOHN R. SCUPHAM, Oil Operator and Mining Engineer, Oakland, Cal.  
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PHOTOGRAPHIC VIEW OF A PART OF THE COLUMBIAN COMPANY'S IMMENSE PLANT.

Fabulous Wealth in Asphaltum. Deposits Unequaled in Extent and Richness in the United States. A Modern Refinery Running Day and Night Turning Out Refined Asphaltum and its many By-Products, is the Brief Story of this Commercial Proposition now being Financed by Eastern Capitalist.

STOCK ONLY 4 1-2 CENTS PER SHARE 45 DOLLARS PER THOUSAND

DIVIDENDS IN SIGHT—

GREAT PROFITS ASSURED—

AN INVESTMENT FOR THE PEOPLE—

Write at once for reports, subscription blanks, photographs, etc., and make all remittances for stock payable to the company's fiscal agents.

THE AMERICAN INVESTMENT CO.

2 Kilby St., Boston, Mass.



## Pacific Coast News.

(Continued from page 10.)

placer location, twenty-six sections of land located about seven and a-half miles, more or less, northeast of Kramer. It intends to make an earnest attempt to develop oil on its holdings, and, President Garrow states, is preparing to spend at least \$15,000 in testing the ground. The company realizes that it has a wild-cat proposition to deal with, and if its efforts should not be rewarded with a good strike, it will take the medicine of failure complacently. It is a close corporation, and the money that will be spent will be that of its organizers.

## SANTA BARBARA.

The Brookshire company will be drilling within two weeks.

The Pinal company will have a second well started within a few days.

A number of men at Santa Maria struck a good thing a few days ago when they discovered several pieces of government land in the oil belt of the county. They lost no time in buying it in at government rates. They are the heroes of the field in consequence.

The Pinal oil well south of Santa Maria took a funny notion last week, and for awhile resembled a Yellowstone geyser. The oil at various intervals spouted over thirty feet in the air, soaking the whole neighborhood. The spouting has stimulated the flow and also the price of stock.

## Has Cut Rates.

The Southern Pacific has cut freight rates on crude oil from Kern county and the Coalinga fields squarely in two for all oil shipped to Fresno to be used in street work.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## Los Angeles Stocks.

Oil stocks on the Los Angeles market continue to respond to the improving conditions of the petroleum prices, and, as prices go up, the demand for this class of securities apparently increases. During the week just closed Central went at 70 cents, a marked advance over any sales that have been made in the past eight months. At this figure there was a good demand, and the fact that no greater amount changed hands was due to the limited offering. Union Oil raised rapidly from \$56.00 to \$60.50, at which point it closed strong at the end of the week. Reed Crude is up to 30 cents. Globe stands 12½ bid, 14½ asked, as against 10 bid and 12 cents asked, which were the market quotations of some ten days ago. Columbia, Fullerton Oil, Fullerton Con. and United Petroleum have all made substantial advances, and are in better demand than at any time for the past three months.

Unlisted oil stocks have not received the same impetus, but some of the better-known of these will undoubtedly feel the influence of better prices for oil within the near future.

Mining stocks command as much attention as ever, with the usual result of fluctuations incident to spasmodic trading. Butte Lode is in better demand, also Bisbee West. Green Consolidated is off a shade or two, while Golden Argus has advanced a dollar a share within the past week. Hudson is an active trader at the ruling price of 10 cents per share.

Among the bank stocks the only notable change were the increased offers for German-American and Merchants' Na-

tional. California Bank stock naturally appears no longer on the board, owing to the absorption of that institution by the new American National Bank. No quotation has yet been established for this security.

Miscellaneous securities remain inactive, most of the business in this line being done upon the curb or in brokers' offices.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, January 14:

## FOUR.

200 at \$ 60.....	\$ 120 00
100 at 59.....	59 00

## HANFORD.

10 at 112 00.....	1,120 00
3 at 114 00.....	342 00

## HOME OIL.

200 at 3 10.....	620 00
100 at 3 05.....	305 00

## INDEPENDENCE.

4,200 at 07.....	294 00
1,000 at 08 (B 90).....	80 00
1,500 at 07 (B 90).....	105 00
1,500 at 08 (B 30).....	120 00

## LION.

3,000 at 06.....	180 60
2,000 at 07.....	140 00

## MONARCH.

1,000 at 19.....	190 00
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## MONTE CRISTO.

600 at 1 35.....	810 00
200 at 1 37½.....	275 00

## OCCIDENTAL OIL.

1,000 at 14.....	140 00
500 at 14 (S 10).....	70 00
500 at 15 (B 90).....	75 00

## PEERLESS.

40 at 13 75.....	550 00
180 at 13 50.....	2,430 00
150 at 14 00.....	2,100 00

## REED CRUDE.

300 at 31.....	93 00
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## SOVEREIGN.

100 at 28.....	28 00
1,400 at 29.....	406 00
500 at 35.....	175 00

## STERLING.

250 at 1 67½.....	418 75
100 at 1 72½ (B 60).....	172 50
10 at 1 70.....	17 00
50 at 1 72½.....	36 25
25 at 1 75.....	43 75
135 at 1 77½.....	239 62
100 at 1 80.....	180 00
200 at 1 87½.....	375 00
100 at 1 97½.....	197 50
100 at 2 00.....	200 00
200 at 2 00 (S 90).....	400 00
200 at 2 00 (S 30).....	400 00
600 at 2 05.....	1,230 00
100 at 2 05 (S 90).....	205 00
100 at 2 15 (B 90).....	215 00

## THIRTY-THREE.

50 at 8 00.....	400 00
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## TWENTY-EIGHT.

1,000 at 1 60.....	1,600 00
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## WOLVERINE.

100 at 50.....	50 00
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23,703 Shares	Amount \$17,257.37
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## CYPRESS LAWN.

100 at 6 25.....	625 00
200 at 6 12½.....	1,225 00

300 Shares	Amount \$1,850.00
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## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo.....	.31	
Aztec.....	.75	.85
Bear Flag.....	.09	
California Standard.....	.14	.15
Caribou.....	.75	1.05
Central Point Con.....	.68	
Chicago Crude.....	.25	
Clairmont.....	.50	
Four.....	.55	.60
Hanford.....	110 00	115 00
Home.....	3.05	3.10
Imperial.....	17.00	
Independence.....	.07	.08
Junction.....	.09	.14
Kern.....	3.95	
Kern River.....	11.50	15.00
Lion.....	.07	
Monarch of Arizona.....	.22	.25
Monte Cristo.....	1.37½	1.40
Occidental of West Va.....	.16	
Oil City Petroleum.....	.17	.20

	B'd.	Asked.
Peerless.....	14.00	14.50
Reed Crude.....	.31	.33
S. F. & McKittrick.....	1.65	
San Joaquin O. & D.....	6.75	7.12½
Sovereign.....	.31	.34
Sterling.....	2.05	2.20
Thirty-three.....	7.75	8.00
Twenty-eight.....	1.60	
Union.....	60 00	
United Petroleum.....	98.00	
West Shore.....	2.50	5.00
Wolverine.....	.50	

## Stock, Bond and Investment Syndicate

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Money Loaned on Stocks.

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R. L. CHENEY, Secretary

514-515 Examiner Building

San Francisco, California

## J. S. EWEN

Member California Stock and Oil Exchange,

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Member of San Francisco Merchants' Exchange and Producers' Oil Exchange.

50 Percent a year. How to make it. Write J. D. Johnston, Newport, R. I.

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ANALYSIS AND REFINING  
TESTS OF PETROLEUM  
ANALYSIS OF ASPHALT &  
FAT & LUBRICATING OILS

Tel. Mint 2791 San Francisco

## DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON DECEMBER 1, 1902, declared a dividend No. 10, of ten (10) cents per share, payable February 1, 1903. Books close January 28, 1903. The address of stockholder W. I. Taze is desired. GURDON BRADLEY, Assistant Secretary.

## GOLD!

Always at Par.

## Hudson Gold Mining Co.

Owens rich gold properties in Arizona; active work now in progress, to continue which stock is being sold at

10 CENTS A SHARE  
Par Value \$1.00  
Full Paid,  
Absolutely Non-Assessable.

When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

W. G. Young & Co., Fiscal Agents,  
628-630 Laughlin Building,  
Los Angeles, Cal.

IN THE SUPERIOR COURT OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA.

In the matter of the Estate of Mary T. P. Flynn, deceased.

Upon the reading and filing of the verified petition of Hugh Flynn Administrator of the Estate of Mary T. P. Flynn, deceased: It is hereby ordered that all persons interested in the estate of Mary T. P. Flynn, deceased, be and they are hereby required to be and appear in the Superior Court of the City and County of San Francisco, State of California in the Courtroom of said Court department 9 thereof in the City Hall of said City and County on the 19th day of January 1903 at 10 o'clock A. M. of that day to show cause, if any they have why the really belonging to said estate and hereinafter described should not be mortgaged for the sum of twenty-seven hundred dollars or such lesser amount as to the Court shall seem meet; reference to said petition is hereby made for further particulars.

The really referred to is described as follows: Commencing at a point on the Southeasterly line of Minna street, distant thereon 368 feet 9 inches southwesterly from the southwesterly line of Fourth street, thence southwesterly along said line of Minna street 23 feet 9 inches, thence at right angles southeasterly 80 feet thence at right angles Northeasterly 23 feet 9 inches thence at right angles northwesterly 80 feet to the point of commencement, and being a portion of 100 Vara lot No. 133, in said City and County of San Francisco.

It is further ordered that notice of this order be given by the publication thereof for four successive weeks, at least once a week before the time appointed for said hearing in the Pacific OIL REPORTER, a newspaper published in said City and County. J. V. COFFEY, Judge.  
Dated December 17th, 1902.

## DELINQUENT SALE NOTICE.

LOMA PRIETA PRUNE RANCH COMPANY. Principal place of business, San Francisco. Location of ranch, Monterey County, California. Notice—There is delinquent upon the following described stock, on account of the assessment levied on the 10th day of November, 1902, the several amounts set opposite the names of the respective stockholders,

	SHARES	AMOUNT
Geo. J. Bucknall.....	5	\$25 00
Eliz. C. Culver, Ex'x.....	10	50 00
C. T. Deane.....	1	5 00
James Jerome.....	2	10 00
Jas. F. Muirhead.....	2	10 00

And in accordance with law, and an order of the Board of Directors made on the 10th day of November, 1902, so many shares of each parcel of such stock as may be necessary will be sold at public auction at the office of Madison & Burke, 30 Montgomery St., San Francisco, California, on Friday, the 9th day of January, 1903, to pay the delinquent assessment, together with the costs of advertising and expenses of sale.  
By order of the Board of Directors.  
FRANK MORTON, Secretary.

## W. FORGIE

WASHINGTON, PA.

Manufacturer of

Oil & Gas Well Rig Irons  
Sand Reels, Cants,  
Arms and Pins. Also  
the Original Tool  
Wrenching Jack, the  
best and cheapest on  
the market.



For prices, etc., inquire

J. D. HOOKER, Los Angeles, Cal., PARKE & LACY CO., San Francisco, Cal., Bakersfield, Cal.

## The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

J. BARRETT, Allegheny, Pa.



### Big Oil and Gas Deal.

In Noble and Washington counties, southeastern Ohio, George White, of Pittsburg and Robert McKelvey, of Titusville, closed up a deal at Marietta recently whereby they become jointly the owners of a three-quarter interest in the John S. Dunn company, operating under an Ohio charter.

The property consists of a gas plant supplying gas to Caldwell, the county seat, and four other smaller towns. Included in the deal is a three-fourths interest in the same company's producing property, which consists of leases on 1,500 acres of territory on which there are thirty-two oil and five gas wells. The net production of the oil wells is thirty-two oil and five gas wells. The net production of the oil wells is thirty-two barrels a day and the price paid for the interest in both was \$75,000. The production is all settled and is taken from the Macksburg 500-foot and the Berea formations. The affairs of the company will be continued after the corporation named, John S. Dunn company, and I. L. Dunn will continue the active general superintendent.

The leases contain a large acreage of undeveloped territory, and active operations will begin at once and continue until the entire property has been fully developed.

Welsh Oil Land Deals.—The Southern Pacific Railway company has closed a deal by which it obtains a tract of land consisting of six and a half acres in Welsh Louisiana. Over \$10,000 will be spent in developing it. Two other land deals are also reported to have been closed.

## CALIFORNIA LIMITED

to CHICAGO, Daily



An ideal train for those who seek the best.

### SANTA FE TRAINS

Leave Market-Street Ferry Depot.

	Daily Local	Daily Lim'td	Local Daily	Overl'd Daily
Lv. S. Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. Stockton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	11:20 p	1:40 p	.....	11:28 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'field	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

California Fortune Oil Company,  
**Three Flowing Wells,**  
SUNSET DISTRICT.  
Office 405 Parrott Building. San Francisco, Cal

**SUNSET PETROLEUM CO**  
Capital.....\$100,000  
Treasury stock.....\$50,000  
Location—Fresno county  
Directors—Chas. L. Fair, president, Blita W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McIlroy, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

**STANDARD ROCK OIL COMPANY.**  
Capital.....\$500,000  
Treasury stock.....\$300,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R A Falkenberg, president; M J Henley, secretary; B B Clawson, R P Chase, Col E J Ewing.  
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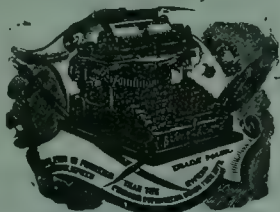
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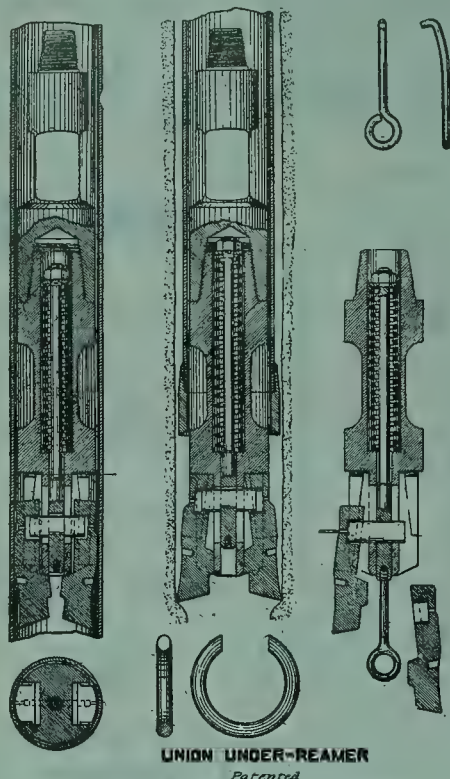
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Vol. 4. No. 11.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 17, 1903.

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Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

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of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

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No empty promises, but absolute facts.

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Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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# PACIFIC OIL REPORTER

VOL. 4. No. 11.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 17, 1903.

PRICE, TEN CENTS.

## THE MIDLAND PACIFIC.

### Active Construction Work Will Commence Within Thirty Days.

### Boston Firm Agrees to Take Up the Bonds to the Amount of Two Million Dollars. -Line to Be Finished Before 1904.

Mr. Isaac E. Blake returned this week from the East, where, in connection with Mr. E. P. Vining, lately manager of the Market Street Railway system, he states that he has succeeded in selling the bonds of the proposed Midland Pacific Railroad to the amount of \$2,000,000.

The bonds were sold to the firm of Kelley, Endicott & Co., of 126 State street, Boston, Mass. The

the Pattiway Pass, the road enters the Cuyama Valley, thence follows down the Sisquoc Valley to Fugler's Point to Gary, where it strikes the Santa Maria River, which river it follows through the Santa Maria Valley to San Luis Bay. This route is 110 miles long.

The second route follows the same line as far as the Cuyama Valley, where it strikes the Santa Maria River, which it follows to

As soon as the road is graded, the work of laying the rails will at once commence. Rails can be laid down in San Luis Bay in ninety days from England, where they will be obtained.

It is proposed to equip the road both for passenger and freight business. In order to transport the oil there will be 200 tank cars of 250 barrels capacity each. There will be forty cars to the train so that each train of tank cars will transport 10,000 barrels of Sunset oil to the coast. The road is expected to run at least three oil trains a day, each train making a round trip, provided oil in sufficient quantities can be furnished.

The equipment of the road includes tankage on the coast to the extent of 1,000,000 barrels.

The English Shell line of tank steamers will transport the oil to the Orient and elsewhere, while

grade of the Southern Pacific road is at the rate of 217 feet to the mile, which is a greater grade than that of the proposed Midland Pacific by 57 feet to the mile. If the Southern Pacific can surmount a grade of 217 feet to the mile there will be no trouble in surmounting a grade of 160 feet.

After the summit of the pass is reached, there will be an easy down grade to the sea.

In regard to the amount of oil which can be relied upon for transportation, there are now in the Sunset and Midway fields, twenty-six wells which last year produced 192,810 barrels of oil or at the rate of about twenty barrels a day. Some of these wells were very shallow and the best of them did not produce more than one-third their possible output, being shut down more than half the time and being allowed to become clogged with sand. In addition



ONE OF THE MODERN ATLANTIC TYPE OF LOCOMOTIVES AND NEW OIL TENDER IN SOUTHERN PACIFIC SERVICE.

These Locomotives are especially designed for high-speed passenger trains and are proving very successful. The weight of the locomotive loaded, is 192,250 pounds; weight of tender, with oil and water, 144,850 pounds; oil capacity, 2,231½ gallons; water capacity, 7,218 gallons.

members of this firm consist of Thos. A. Kelley, formerly with E. A. Rollins & Co. of Boston. The other member of the firm is Arthur Endicott, an Englishman, who represents very large financial interests in Europe.

Mr. Blake states emphatically that the work of constructing the road will commence inside of thirty days.

Next week, Mr. Blake, in company with Mr. C. A. Tush, the engineer of the road, will carefully examine the three proposed routes, and will then finally determine the exact route which the road will traverse.

The first of the proposed routes starts from the Sunset field, where the elevation is 1,300 feet, and climbs to the summit of the Coast Range, 2,900 feet high. Through

the upper end of the canyon; thence to Alamo Creek, which it follows to the Huasna; thence up to Pitch Pine Creek; thence down to Arroyo Grande, and thence to San Luis Obispo Bay.

The third route practically follows the Santa Maria River all the way from the Cuyama Valley to the sea. The shortest of these routes is the second by the Alamo, which is 100 miles. The route by the Santa Maria River is 103 miles long and the Sisquoc route is 110.

Work will commence from the coast end of the line within thirty days, and it is more than likely that the first length of road to be completed will run near enough to the wells of the Western Union Oil and the Pinal companies to take their product to the coast.

other lines of American steamers and sailing vessels will transport the oil north and south.

The cost of transporting the oil from Sunset to the sea will be 15 cents a barrel. It is estimated that the road will pay from the start on account of the oil business, and whatever other traffic is over the road will all be profit.

At San Luis Bay a wharf will be constructed which will extend out to reach a depth of thirty feet of water at low tide.

In order to reach the highest elevation the road will rise from an elevation of 1,300 feet at Sunset to 2,900 feet at the top of the Pass. In climbing this grade of 1,600 feet the road will be constructed for ten miles on a grade of 160 feet to the mile.

In climbing the Sierras the

to the twenty-six producing wells, there are now in Sunset fifty-five wells capped, and in Midway sixteen wells capped, a total of seventy-one wells.

In the two districts there are now twenty-one wells being drilled which will soon be completed so that at the present time it can be said that there are 118 wells that would be tributary to the Midland Pacific road, giving to these wells an average production of seventy-five barrels per day. These 118 wells can produce nearly 9,000 barrels of oil a day. This is less by considerable than what the wells can actually produce, as very many of the wells have an output in excess of 200 barrels a day.

Within three months there could

(Continued on page 8.)



## IRON AND STEEL PLANT.

### A Vast Enterprise Will Soon Be Inaugurated on the Bay Shore.

#### A Railroad Will Soon Be Transporting Iron Ore from Madera County to the Bay Where It Will Be Made into Iron and Steel.

With the development of the oil industry in California, a number of commercial and manufacturing enterprises have sprung into existence which equal if not surpass any of those great enterprises which are at the foundation of California's wealth and industrial importance.

The Standard Oil company will soon have expended upwards of \$6,000,000 in the construction of the largest oil refinery in the United States, which will immediately upon its completion, place California in the front rank of the oil-refining regions in the world.

In connection with the refinery is a pipe-line now nearing completion and which is the largest and the longest line in the world, extending from Bakersfield to the bay at Point Richmond, a distance of 278 miles, being eight inches in diameter and having along its line twenty great pumping and heating stations by means of which the oil is forced rapidly through the pipes from Kern county to the bay.

A number of other refineries have also been established in the State during the last year which employ a number of laborers, skilled and unskilled, and which add greatly to the productive wealth of the State.

About the bay of San Francisco and in and about Los Angeles during the last twelve months, cheap liquid fuel has been the means of the establishment of a large number of manufacturing enterprises which would not have been started had not cheap fuel given them the means to compete with Eastern manufacturers.

Within a few months another enterprise will be inaugurated which bids fair to equal, in the vast amount of capital required to install the plant and put it into operation, any industrial enterprise of which California can now boast.

The name of the company which is to establish this new enterprise is the Western Iron & Steel company, which has recently been incorporated in the East largely through the instrumentality of General W. H. H. Hart, who has just returned from New York where for five months he has labored assiduously and successfully in promoting the company. In the accomplishment of his plans the chief object was the

formation of this great corporation which as its name implies, will soon engage on a gigantic scale in the manufacture of iron and steel. The company will soon issue \$6,000,000 of preferred stock all of which has been underwritten.

The engineers of the company are now at work completing the plans of the plant, and the actual work of constructing the building will commence as soon as the location has been finally decided upon. The selection of the location is entirely in the hands of the company's engineers who have the choice of locating either at some point in the Carquinez straits near Port Costa or at some point in San Pablo bay presumably near Point Richmond, or at some point on the east side of San Francisco bay near Oakland or West Berkeley. Options on several large tracts of land have been secured, each of which tract is held to be suitable as a location for the intended plant.

The plans of the company provide for the erection of two blast furnaces having a capacity of 600 tons net of pig iron daily; of eight open hearth furnaces of large capacity and of a number of rolling mills sufficient to dispose of the products of the furnaces where steel rails and sheet steel will be manufactured; of one rod mill, and of one merchant mill which will include the manufacture of steel, steel bars and chrome steel for use in the mines; of one tube mill where water and gas pipes will be manufactured.

There is no steel plant now on the Pacific coast and all the steel used here is now obtained at great cost owing to the heavy rates of transportation and the vast amount of time engaged in transshipment.

Freight rates are \$13.40 from Joliet, Ill., and \$15.60 from Pittsburgh, on all finished products to California terminal points.

As was said above, the work of constructing the plant will commence as soon as the engineers settle upon the location of the works. When that is decided, over a year will be required to put the plant into operation.

The iron ore will be taken from a vast mountainous deposit in Madera county. This ore has been subjected to the most careful tests and examination and has

been pronounced the equal of any iron ore in the United States.

In order to transport this ore, General Hart has organized a railroad enterprise in connection with the manufacture of iron and steel. The railroad will be called the California Midland and in its construction, bonds to the amount of \$8,000,000 will be issued. These have been underwritten. The railroad will run from Madera county to San Francisco bay. A franchise has already been granted from San Francisco to Kings creek, near the headwaters of the San Joaquin river, a total distance of 247 miles. The route has been surveyed and contractors are willing to give bonds to complete the grading of this road within fourteen months. The road graded, four months more will be required to lay the rails and place the road in an operative condition.

In reducing the iron ore, a coke will be used which will be manufactured from Washington coal and Kern River oil, the Lowe process being used. By means of this process, 2,000 pounds of coal and a barrel of oil will make 1,500 pounds of superior coke. By this process not only will a great quantity of gas be manufactured to be used in coke making, but every 2,000 pounds of coal will make in addition to the gas used in the manufacture of the coke from 10,000

to 12,000 feet of gas, consequently the gas used in the process will amount to over 7,000,000 feet a day which can be used for power and open hearth furnace and rolling mill purpose and leave 1,000,000 feet per day outside of the the iron works for illuminating and manufacturing.

General Hart asserts that the Western Iron & Steel company has been actually formed and that all the money necessary to put the company into practical operation on a gigantic scale has been underwritten and that the completion of the preliminary details is only a matter of a short time; that the work of constructing the road will soon commence simultaneously with the commencement of the operations upon the company's plant.

The railroad will not only be profitable from the start on account of the transportation of ore but will also have an immense general freight business and will also be valuable as a terminal for other roads.

Probably no region in the world is more in need of an iron and steel manufacturing plant than the Pacific coast.

No country in the world presents such inducements for the investment of vast capital in iron and steel as does California.

There is no doubt but that the company could not only sell all the iron and steel it could produce but that it could sell its product far below the prices of the Eastern product and still obtain a great profit.

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#### Fitler Cables--best in the world

We carry in stock heavy 7½-in., 5½-in. and 4½ in. Boston Casing, in addition to all the standard sizes and weights. 6-in., 8-in. and 10-in. Boston Drive Pipe always on hand.

## Pacific Coast Headquarters

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## PATENT FOR OILING ROADS.

**The Best Legal Talent Pronounces the Patent Perfectly Valid.**

**It is Asserted that Counties, Cities, Individuals and Railroads Will Have to Pay \$15 a Mile for the Privilege of Oiling Roads.**

It begins to look as if the California Dustless Road company would win out in its efforts to compel counties and municipalities to pay royalty on oiled roads. It has a patent and according to the experts who have been sounding the legal depths, the patent is a cinch.

The claim was at first scouted and ridiculed. Then the Dustless company brought a test suit against the county of Los Angeles for the royalty of \$15 a mile. All the counties of southern California are deeply interested and were invited to contribute toward the defense, and most of them responded to the appeal.

Now comes the news that the judiciary committee of the league of California municipalities has, after exhaustive investigations concluded that the claim of the Dustless Road company is valid and can be enforced. This seems the more likely when it is considered that the Southern Pacific has laid down its hand and is now paying the royalty.

Last Saturday's issue of Oil, Mining and Finance, published at Los Angeles, has a article on the subject, which we reproduce. It reads:

At the convention of the League of California municipalities, held in Los Angeles during the month of January, 1902, the matter of the validity of the Mattern patent for the making of roads, roadbeds, race courses, etc., with petroleum, was referred to the League's judiciary committee, consisting of the following attorneys: C. N. Kirkbridge of San Mateo, R. G. Loucks of Pomona, W. F. Heathman of Santa Ana, H. L. Partridge of San Jose, and Raleigh Barcar of Vacaville.

At the late convention of the league held last month at San

Jose, the judiciary committee rendered a report affirming the validity of the patent.

The report is signed by Mr. Kirkbridge, as chairman, and was concurred in by the entire committee, after a very careful consideration of the contentions made for and against the validity of the patent.

All rights accruing under the Mattern patent in the State of California are vested in the California Dustless Roads Company, of which Mr. Frederick W. Mattern, the patentee, is president. For a royalty consideration this company issues licences to operate according to the Mattern patent. That the affirmation of the latter's validity by the judiciary committee of the California League of Municipalities, composed, as it is, of lawyers of high standing both for character and ability, is an incident of considerable significance goes without saying. The tenor of the report, however, is only in line with the opinion of eminent patent counsel in Washington, given after an exhaustive examination of the claims made in the patent and of pertinent decisions by the highest federal courts.

It is also in substantial accord with an opinion rendered by the counsel of an association composed of the principal railroad companies of the United States, and in compliance with which opinion some twenty-six of which corporation (including the Southern Pacific and Santa Fe) agreed to the payment of tribute for the privilege of making roadbeds with oil.

The oil-treated road is no longer a curiosity in California; indeed, it is getting to be common, although not nearly as common as it ought to be. There was, however, a time when the oiled road was not known, and the bare sug-

gestion that such a thing could be, was greeted with derision and the man having the temerity to advocate its trial was treated as a well-meaning, but terribly mistaken individual.

Mr. Mattern is the father of the oil made highway. About fifteen years since, he commenced a systematic investigation of the utility of crude petroleum as a road-making material, and, before long, satisfied himself of the commodity's efficiency for that purpose.

Appreciating the value of the idea he had originated, Mr. Mattern applied to the United States government for a patent for the use of oil on any and all kinds of roads. The application for a patent was filed December 5, 1896, and the grant was made April 5, 1898, the number being 602,023. The issuance of the patent is shown in the Patent Gazette of the last mentioned date, which would be No. 1, of volume 83. Mr. Mattern assigned his patent to the Dustless Roadbed company of New Jersey, receiving as part of the consideration for consignment the right to the privileges of the patent for the State of California, which right he subsequently deeded to the California Dustless Roads company.

Mr. Mattern's letters patent are comprehensive in their specifications and secure him, or his assigns, broadly in the sole right to treat roads, rail, wagon or foot, with oil, regardless of the manner or method of applying the oil. The Dustless Roadbed company has given it out that the patent will be protected from infringement at all hazards. The company is a strong corporation.

Now that the use of oil on roads has become more or less common, a tendency to question the validity of the Mattern patent has been evinced in some quarters. Yet at the time Mr. Mattern was carrying on the experiments whereby he demonstrated the correctness of his theory, and even as late as the date at which he applied for letters of patent, nearly everybody whose attention was invited to the idea considered it so novel as to be either impracticable or ludicrous.

Oil has been struck near Santa Rosa, N. M., and it is claimed that there is promise of a good field.

## WILL ALL USE OIL.

**Every Railroad West of the Mississippi to Burn Oil.**

The Minneapolis Times declares that it would not be a matter of surprise if within the space of ten years every railroad train west of the Mississippi should be propelled by fuel furnished by the oil fields of Texas and California. The prediction looks reasonable when it is considered that oil has been used with success for some years by the Southern Pacific and Santa Fe railway companies in Southern California. The great obstacle has been the uncertainty as to the supply of oil. With that doubt removed by the development of the Texas fields we may expect petroleum to come into general use in the West as steam making fuel very rapidly.

## Eastern Oil Market.

The following table shows the highest, lowest and average price of Pennsylvania credit balances for each month of the past year:

Month.	Highest.	Lowest.	Average.
January.....	\$1.15	\$1.15	\$1.15
February.....	1.15	1.15	1.15
March.....	1.15	1.15	1.15
April.....	1.20	1.15	1.17½
May.....	1.20	1.20	1.20
June.....	1.22	1.20	1.20½
July.....	1.22	1.22	1.22
August.....	1.22	1.22	1.22
September.....	1.22	1.22	1.22
October.....	1.33	1.22	1.28½
November.....	1.42	1.33	1.38
December.....	1.54	1.42	1.49
Average price for 1902.....			\$1.23½
Average price for 1901.....			1.20½
Average price for 1900.....			1.35½
Average price for 1899.....			.92½

In the table that follows is shown the prices paid for the principal grades of crude oil at the wells by the Seep Purchasing Agency throughout the year just closed:

1902.	Penn.	Tione.	N. L.	S. L. & Whitehouse
January 1.....	\$1.15	\$1.30	.85	.80
April 16.....	1.20	1.35	.88	.83
June 26.....	1.22	1.37	.89	.84
October 4.....	1.25	1.40	.91	.86
October 7.....	1.27	1.42	.92	.87
October 16.....	1.30	1.45	.95	.90
October 29.....	1.33	1.48	.97	.92
Nov. 6.....	1.36	1.51	.99	.94
Nov. 11.....	1.39	1.54	1.01	.96
Nov. 25.....	1.42	1.57	1.03	.98
Dec. 4.....	1.45	1.60	1.06	1.01
Dec. 6.....	1.48	1.63	1.09	1.04
Dec. 12.....	1.51	1.66	1.12	1.07
Dec. 31.....	1.54	1.69	1.15	1.10
N. L.—North Lima, S. L. & Ind.—South Lima and Indiana.				

—Oil City Derrick.

## Eastern Wells.

Since the completion of the first well for oil and gas in the Trenton limestone oil field of Ohio and Indiana, there have been 72,867 wells completed, of which 12,548 were dry holes or gas wells. The first test was drilled in 1884. Figures show that 60,313 of the wells produced oil, but some were short lived, and of that number 17,461 have been abandoned, leaving at the present time 42,852 producing wells in the two States.

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## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money express order for two dollars for company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY, JANUARY 17, 1903

Although no railroad enterprise which has The Midland Pacific presented the investing public for years rests on a more solid foundation of large and profitable business than that offered by the promoters of the Midland Pacific, up to the present time it has been a matter of considerable doubt as to whether the promoters of the enterprise would succeed in placing the bonds which would insure the early construction of the road.

It would now seem absolutely certain that responsible Eastern parties have purchased the bonds, and that the money is ready to commence actual constructive work. The specifications for grading, etc., are already prepared, and it is expected that contracts will be let and work be begun before the first of February.

The building of this road insures a market, transportation, and great prosperity for the oil-producers of the Sunset Midway field, which field can easily produce more than 10,000 barrels per day, and even twice that amount, before the road is ready for operations, which will be at the close of 1903 or early in 1904.

When the road is completed, there will also be completed at Port Harford tankage to the amount of 1,000,000 barrels, and in Sunset field tankage nearly as great will be provided.

In order to transport this immense amount of oil, lines of tank steamers will run from Port Harford to the Orient and elsewhere, supplying the liquid fuel which is now so greatly needed, and which the Sunset field can supply in unlimited quantities for an indefinite period. Other lines of

tank steamers will transport the oil north and south.

The Midland Pacific will effect a great reduction in oil freights.

Oil will be transported from Sunset to Port Harford for fifteen cents a barrel. The charge from Port Harford to San Francisco will be six cents a barrel, making a total cost of transportation from Kern county to San Francisco of twenty-one cents, and, even if a small charge is made for storage, the total cost of transportation will be less than twenty-five cents per barrel as compared with the present charge of forty-two cents. There is no doubt but that the Southern Pacific and Santa Fe roads will be obliged to reduce the present rate of forty-two cents to twenty-five cents a barrel in order to compete with the new rate of the Midland Pacific, and allow the producers of the Kern River field to do business at a profit.

Within the next three months a great deal of development work will be commenced in the Sunset field. The price of land is already advancing very rapidly.

Reference to the sales of oil stock made on the floor of the California Oil & Stock Exchange shows that this has been the heaviest week for business in the history of oil stocks in California.

The expected has happened. The oil business and particularly that portion of it pertaining to the sale of oil stock is perfectly legitimate. While the oil business was in an unsettled state, while the production was far in excess of the consumption, and while the price of oil was ridiculously low, oil stocks, with few exceptions, were little in demand, and the price received was small.

Times have changed. Oil is in demand at a greatly increased price. New transportation facilities are rapidly being opened up, and the consumption is increasing more rapidly than the fondest an-

ticipations could predict. As a result oil stocks are in demand.

Last week the sales on the floor the Stock Exchange amounted to \$68,249.25. Next week these sales will probably be increased.

Thus far the sales of stock are confined principally to producing companies in districts that have transportation facilities. As these facilities increase we may expect to see the stock of other companies increase very largely in price.

There never was a time in the history of the oil industry when there were such opportunities offered for profitable investment in oil stocks as the present.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## ITS USE INCREASING.

The Supply of Oil Is Apparently Inexhaustible.

One of the important features in the modern method of utilizing nature's bounty is the increasing use of oil as a fuel. It has been but a short time since such a thing was unknown. The wood-burning locomotive is not so very far in the past. The discovery of rich oil wells in a dozen States, and the complications that have arisen over the coal supply have combined to add to the inventions of the mechanical arts those that give oil to the steam engine, for fuel and allow of its use in places where it was before unknown.

It is true that there are yet some unsatisfactory points to be cleared up in this direction. The oil-burning engines are not perfect, and the question of supply and demand is not entirely settled. There is much to do in the correct preparation of oil for its most economical use, and the price has not yet proved so steady and low as to warrant extensive improvements predicated on the continued use of this fuel. There are many who

believe that there will be a lessening of the supply, and that the rich fields that have been opened are not to last. There is little to fear in this direction. Each year sees more producing wells and a larger output. The "things under the earth" appear to be, for this generation, at least, inexhaustible, and it is but a matter of economical utilization that is between the present use of oil and a much greater and more general adaptation of oil to the steam-supplying machinery.

Oil properties seem to have as much stability as do those that give coal or gas. They are increasing as rapidly and they have the broader field in which to dispose of their product. It is not expected that every "gusher" will continue at its original force, nor is it to be supposed that there is an unlimited supply beneath every field. But at the present rate of discovery and with the continued exploitation of new fields, there is every reason to believe that the future of the oil producer is a bright one. There is little doubt but that the methods for the utilization of oil in various forms of machinery will increase and the forms and manner in which it will supersede coal, both on railways and in other places, grow larger. The world of manufacturing seems ripe for a better and more condensed form of fuel, and as gas is out of the question in the present state of development for general use, oil has the most favorable outlook for growth in that direction.

The effect of a more general use of oil upon oil properties is certain to be noticeable, and will add to their value. Where the permanent supply is practically certain, there can be little doubt of the outcome with the right kind of management. For oil is the coming fuel if the present rate of increased use continues and the supply does not diminish. As yet there is no indication of the latter occurring, and indeed there is a distinct progress in the other direction.—Bonds and Mortgages.

## December Oil Dividends.

The following are the principal dividends paid by California oil companies, during the month of December:

Company.	Per Share.	Total Amt.
Brea Canyon .....	.03	\$6,000
Brea Canyon, Ex. ....	.03	6,000
Four .....	.01	3,000
Hanford .....	1.00	2,000
Home .....	.07½	7,500
Imperial .....	.20	20,000
Peerless .....	.08	8,000
San Joaquin .....	.05	5,000
Thirty-three .....	.10	10,000
West Shore .....	.05	5,000

Total .....

Among the quarterly dividends to be paid this month are one by the Union Oil company of 70 cents per share and one by the Central of 1½ per cent.

## Sunset Land For Sale Cheap!

In order to make a quick turn I offer for a few days 20 acres of proven land in the heart of Sunset for \$250 an Acre. This land in six months will be worth at least \$1,000 an acre.

Terms—One half cash, balance in one year.

Will also sell a complete Standard Rig for \$1,500.

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## PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

## COLUSA.

R. W. Gorrill will move a rig out to the Sulphur creek district, and drill a well.

The local oil field does not present a very brilliant prospect, with the abandonment of work by Smith & Gorrill on Sand creek. It is thought that W. E. Youle, the contractor, may make an arrangement to test the Bear creek country, as he and R. W. Gorrill have secured a large amount of land in that section.

## COLORADO.

The drilling into oil by the Frazer Oil and Development company at a depth of 2,000 feet revives the oil interest at Florence, Colorado, and no doubt many other wells will be put down near it. The hole was drilled in the Frazer orchard, near the center of Florence, and, while hundreds of people claimed that oil would not be found there, their prophecies were found lacking in judgment. General Manager Wallace has inspected the find, and reports that the well will prove a better producer than the average well in Florence. The first day's pumping produced 75 barrels, and it is thought this figure can be maintained for several months.

## FRESNO.

The Esperanza, in the Coalinga district, has just completed another well. It is at least a 200-barrel producer.

The report that the Esperanza of Coalinga was recently offered thirty cents for its product by the Standard and finally closed at thirty-five cents is not substantiated. No such contract has been made.

## INYO.

The Roosevelt Oil company, operating near Hawaii, Inyo county, has 13,000 feet of lumber at Keeler, which will be used in erecting eleven more oil derricks. The present well is down nearly 1,000 feet, and, unless oil is struck before, it will be continued to a depth of 1,500 feet. Oil shale has been passed through, and the formation at the bottom is blue granite, which the management believes to be a capping.

## KERN

J. E. Beard and W. W. Stevenson are putting in a rig on the southwest quarter of 30, 32-24, near the Spellacy wells at Midway.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The Paraffine, which last year went down 1,700 feet at Tumbler and was unable to get through the black shale, is contemplating drilling another well a quarter of a mile from the old one, and near the Bishop well.

Our correspondent at Sunset writes us that the pipe-line of the Lion Oil company has been completed, and connected with the large tank at the terminus of the railroad, and that that company, within the next days, will be shipping oil from their two wells at that place.

An oil train that broke all records on the Southern Pacific, and so far as known, all records in the world for weight, was hauled from Oil City to Kern last Friday night. It comprised an equivalent of ninety-three large loaded cars, and was in charge of Conductor C. J. Pearson and Engineer Nesbitt. The weight of this train was 5,500 tons, and the length, allowing an average of forty feet to a car and sixty feet for the engine, was about two-thirds of a mile.

It is reported that at least two big sales have lately been made in the Sunset district, and that before long the public will be informed of facts that will mean much for that field. At present the deals are being kept quiet for obvious reasons, but it may be asserted that large sums of money are in process of changing hands, and that some of the best territory in that section is about to have new owners who will add other cash to their investments and proceed to extensive developments. With the general revival, Sunset is taking on a condition of activity that will soon make it the second field of importance in the county.—Californian.

## MERCED.

A gang of S. P. carpenters are constructing a pump-house near the recently completed oil tank. An engine and pump will be installed therein which will pump the oil from the cars into the big storage tank. Another pump worked by air pressure will send the oil from the storage tank into the oil tanks on the locomotives, the air pressure being supplied from the locomotive. The capacity of the storage tank is 160,000 gallons.—Merced Sun.

## OREGON.

There will be manifested much renewed interest in the Malheur oil proposition during the present year, and a number of wells will be sunk. Every expert who has ever examined the region has ex-

pressed the belief that oil of excellent quality exists there, as the indications are very pronounced and unmistakable.

The Baker City Democrat says: Oil has been struck in Malheur. The indications are that it is in paying quantities. High-grade petroleum has been found in two wells; one of these is on the property of the Union Oil company and the other is on the lands of the Zenith Oil company. There is already talk of oil-burning locomotives and sprinkling the streets with oil. This is the first oil that has been struck in Oregon.

## SHASTA.

Another promising oil section of Shasta county is to be vigorously prospected for petroleum. The land lies in the Arbuckle region in townships 29 and 30, range 8 west. New Year's day seventeen quarter sections were filed upon by Redding and Keswick parties, many of whom were also interested in the recent locations on the sand flats east of Keswick. The area located aggregates 2,720 acres.

## SAN MATEO.

The Pilarcitos Oil company has resumed work.

The Tesla Oil company has begun work on the Higgins ranch.

Sallee, Hayne & Guibersen have well No. 5 down to a depth of 1,600 feet.

The Wisconsin Oil company is putting in a large pump to reduce the water in the well so as to continue work.

The new well being put down by the Fountain Oil company is now down to a depth of about 500 or 600 feet, with prospects for a good well.

The High Gravity Oil company on the Holji place are down about 1,400 feet. It is reported that they have forty feet of oil in the well, and apparently the flow is increasing.

## UTAH.

The oil location boom in the Green River oil field is now on. Since the first of the year there has been a large number of prospectors in the field relocating and setting up monuments on some of the unprotected oil land that reverted to Uncle Sam on January 1st. In Emery county 373 oil location notices have so far been filed, and probably almost as many more are in the possession of locators. Don C. Robbins has sent in about two-thirds of the above number. Among the men he has located are the Walker Bros., Witcher Jones and other Salt Lake capitalists.

## VENTURA.

The Free Press says, that it is probable that every well of the Union Oil company in this county, and every well the output of which is taken by the Union will suspend operations this week. Most of the wells, in fact, have

already suspended and the rest are on the point of suspending. It has been many years since the Union Oil company has had to face such a condition as now confronts it. The wells are forced to stop pumping because the company can not ship the immense amount of oil now on hand. Every storage tank in its possession is full and overflowing with oil. The three big storage tanks in Ventura, the big tanks in Santa Paula and the storage tanks in every field are all full. During the past two months, the barge Santa Paula, which has previously made weekly trips did not load here, having been engaged in transporting oil from San Francisco to coast ports. She has just returned from Astoria and will probably arrive here in a few days. The barkentine Fullerton is now on her way here from the Hawaiian Islands and when both of these vessels load, the stress will for a time be over. Both vessels will return to Ventura as often as possible to load the surplus oil. Now that the George Loomis has been taken off this run the P. C. O. company will soon send the steamer Asuncion here.

## WYOMING.

The Western Oil company, which is backed by English capital, has encountered a strong flow of natural gas in one of its wells in Brenning basin, thirteen miles west of Douglas, Wyoming. The gas was accompanied by a small flow of lubricating oil. So strong was the force of gas that stones and sand were thrown. This strike of gas is important, as it probably assures producing wells in the Brenning district.

A driller from the Popo-Agie oil fields near Lander, Wyoming, reports that the Hendersons have two new rigs at work in the fields. They have eight flowing wells, but all have been plugged to await the coming of a railroad. Four of these wells were completed during the past season. It is said that the Hendersons have given out the information that as soon as they get down twenty-five wells they will have transportation facilities for all of the oil they can produce. Whether this means a pipe-line or railroad is not known.

## The Alameda.

The Oceanic Steamer Alameda makes her first trip to-day for Honolulu as an oil burner, having been changed from a coal to an oil burner this month.

Quick work has been done in making the change, only forty-seven days having been consumed at the iron works in getting the Alameda into shape for operation, and the two cofferdams and bulkhead that were put in have been tested and accepted by both Lloyd's and the Bureau Veritas. The Alameda, like her sister ship, the Mariposa, is expected to be an unqualified success as an oil-burner.

There have been in all 150 oil wells sunk in the Boulder field of Colorado.

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## THE MIDLAND PACIFIC.

(Continued from page 3.)

be drilled in Sunset district alone an additional fifty wells at least so that if the road could dispose of the oil, the Sunset field could easily contribute 20,000 barrels a day.

The length of time that these wells could produce is problematical, but the sand is so deep and so rich in oil that it is safe to say that the district being of such vast area could easily keep up its production for the next twelve or twenty years without any material diminution.

The success of the road now depends entirely whether or no the firm of Kelley, Endicott & Co., which has taken the bonds, will and can provide the necessary funds as wanted.

The probable cost of construction is estimated at \$25,000 per mile including the equipment, storage tanks, etc., and if as stated Kelley, Endicott Co. will take up the bonds as fast as the different sections of the road are completed, the road can be built and completed easily before the close of 1903.

By that time Sunset district will be in a condition to supply the road with all the oil that 200 cars can transport.

Then will come the question of disposing of the oil.

It is plain to be seen that with the increased production of the Kern River, Coalinga and Fullerton fields, the rapidly-increasing home consumption can easily be met, consequently the producers of the Sunset and Midway fields will be obliged to look for their markets largely in the regions outside of California.

The great English oil companies, which have their production largely in Borneo and Sumatra, rely upon these fields for illuminating oil, and are now casting about for a cheap and abundant supply of fuel oil. It is believed that these great English companies, which are now greatly in need of cheap fuel, will obtain their supply from California as soon as it is offered to them in sufficient quantities and at such a low price as to make it an object for them to send their tank steamers across the Pacific.

\* \* \* \* \*

Since the above was in type a letter has been received from Mr. Vining to the effect that Kelley, Endicott & Co. report that they had effected the sale of all the bonds, and that in fact some of the bonds had been resold at a profit over the first sale.

Furthermore the specifications for the construction of the road are ready for the contractors.

The coast terminus of the road will be at Port Harford.

Contracts from the Sunset oil producers, which are agreements

to send oil to the coast by the Midland Pacific, have been obtained from Mr. H. W. McCray, of Bakersfield, the agent there for the Midland Pacific. It is understood that these contracts already amount to upwards of 10,000 barrels per day.

As soon as the road is completed to Sunset, two branch lines will be constructed—one to Bakersfield on the northeast and the other through the Midway district up to McKittrick and beyond on the northwest. It is stated as a fact that an offer has been made to purchase bonds to the amount of \$3,000,000, in addition to the \$2,000,000 already purchased, for the construction of these branch lines and for other work.

It is also stated that the Midland Pacific will be a terminal for a new transcontinental line entering the San Joaquin valley from the east through Walker's Pass in the Sierra Nevada mountains in the northeast corner of Kern county.

The work of rebuilding the plant of the Hercules Oil Refining company, in Los Angeles, California, recently destroyed by fire, will soon be under way. It is the intention to build a plant considerably larger than the one destroyed, as the company had difficulty in keeping up with the demand for refined products before it was forced out of the market.

## Water in Texas Wells.

Professor R. A. Brule, an oil expert, says of the salt water in Spindle Top wells, that the evil was done either through ignorance or gross carelessness, and he was inclined to the latter belief. He has located the well from which he thinks casing was drawn, permitting the salt water to permeate the oil sand, and hopes to soon have it so cased off that no more water can enter. If this were done the field could be bettered. Oil men admit that the east section of Spindle Top is rapidly becoming so filled with salt water that the wells are absolutely no good.

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## SMALL EASTERN WELLS.

### California Oil Men Would Not be Satisfied with the Product.

#### The Eastern Wells Now Being Bought In Average Fifteen Barrels as Against the 150 Barrel California Well—Refining Oil In Great Demand.

Within the last three weeks a number of wells have been completed in the Eastern oil districts. Nearly all of these wells are very small producers as compared with the average California well.

The following shows their productive capacity:

In the Salem district, Harrison county, W. Va., the South Penn company has completed its test on the Hession heirs' farm, and has a twenty-five-barrel producer.

In Monongalia county, W. Va., the Marion Oil company has completed its No. 7, on the Jarvis Postalwait farm, and will not have better than a five-barrel pumper.

In the Leginoville district, Beaver county, Pa., the Vicary Oil company has drilled in its No. 3, on the Barto heirs' farm, and has a show for a small pumper in the 100-foot.

In the Elm Run district, Ritchie county, W. Va., the Salina Oil company has completed No. 7, on the J. P. Marshall farm, and has a show for a fifteen-barrel pumper in the salt sand.

In the Marietta district, Washington county, O., the Henderson Oil company has completed a test on the J. F. Briggs farm and has a ten-barrel pumper in the Reppert sand. The Marietta Consolidated Gas company has completed a test on the James Perdew farm and has the same kind of a pumper.

In the Pine Grove extension, Wetzel county, W. Va., the South Penn Oil company has shot its No. 1, on the Rose Potts farm, and will not have better than a fifteen-barrel pumper.

In the Salem district, Harrison county, W. Va., the South Penn Oil company has drilled its test, on the Marcellus Clark farm, into the stray, and the well made a fifteen-barrel flow.

In the Jackson Ridge district, Monroe county, O., the Columbia Oil and Gas company has drilled in its No. 2 on the George S. Craig farm, and is good for fifteen barrels a day in the Keener sand.

In the Brush Creek district, Alleghany county, Pa., the Hazelwood Oil company has drilled its test well, on the Robinson heirs' farm, and has a thirty-barrel producer since giving it a shot.

The Ohio Southern Oil company has completed No. 13, on the W. D. Copeland farm, Monroe county, O., and has a five-barrel pumper. The same company has

completed No. 10, on the J. A. McDavitt farm, and has a fifteen-barrel pumper. The Southern Oil company has completed on No. 5, on the J. Q. Law farm, and has a small pumper. The Ann Oil company has drilled its No. 3, on the J. H. Melany farm, through the sand, and will have a five-barrel pumper.

From the above it will be seen that an Eastern well that will produce a daily average of fifteen barrels of oil is regarded as a good producer, and land that has upon it wells of this productive capacity is held at fabulously high figures.

Compare these wells with the average California well. It is a poor well in the California fields that does not average 100 barrels a day. Many of them have been yielding from 150 to 200 barrels a day for years, and although the output must diminish in time as the supply becomes exhausted still the supply is so vast, and the oil reservoirs are so extensive that it will be years and years before California wells produce less than fifty barrels a day at least.

To-day the average price for Eastern oil at the wells is \$1.35.

In California the price is much less, and it is hard to state what the price is on account of the different kinds of oil, and from the fact that so many kinds of oil come from the same district, as for example the Coalinga district, where in a territory five miles square oil can be obtained in quantities ranging from 20° to 30° and even higher, some of this being an oil suitable for fuel, some for gas-making, some for refining, and priced accordingly.

It would not be out of the way to say that the average Kern oil is worth to-day at the wells 20 cents. It will be worth much more as the average yield of the wells becomes less, as oil comes into greater consumption, and as the refiners know better how to handle it and extract from it its valuable component parts.

It may be that the average Kern oil of 15° will be found to be valuable for its illuminating qualities. If so a 150-barrel well, producing a 50-cent oil will be a very valuable property.

What the oil men are now after is an oil in abundant quantities that can be refined like the Eastern oil.

If a refining Eastern oil is worth

at the wells \$1.35, the same oil in California would be worth \$1.80 at least. Every refinery in the State is experimenting with our California oil and is trying to discover a method by which a kerosene can be made from it cheaply. Of course all our California crude oil can be refined. The trouble is it takes too many barrels of crude oil to make one barrel of kerosene. This is true of almost all of it.

What would make the discoverers wealthy beyond their fondest dreams is to drill a well that would yield an average of 150 barrels a day of oil equal in value as a refining oil with the Pennsylvania or Tiona oil that to-day is worth at the wells—the former \$1.54 and the latter \$1.69 a barrel.

In California such oil would be worth over \$2 at least. At that rate think of the income to be derived from a group of a dozen wells averaging 150 barrels each.

There is ground for believing that there is in California a vast quantity of oil just as valuable for refining as Tiona oil. It may be different in certain respects, but it contains just as high a percent of illuminant as the Tiona oil. It has not been discovered yet in quantities, but it is here, and samples of this oil can be seen in

the office of the PACIFIC OIL REPORTER.

Some day some company will send a drill down on a wildcat speculation and will strike this deposit of oil. When this happens look out for an excitement that will make the early history of the Pennsylvania oil fields seem like dull reading.

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Treasurer, JOHN R. SCUPHAM, Oil Operator and Mining Engineer, Oakland, Cal.  
J. W. WALKER, Phoenix, Arizona.



PHOTOGRAPHIC VIEW OF A PART OF THE COLUMBIAN COMPANY'S IMMENSE PLANT.

Fabulous Wealth in Asphaltum. Deposits Unequaled in Extent and Richness in the United States. A Modern Refinery Running Day and Night Turning Out Refined Asphaltum and its many By-Products, is the Brief Story of this Commercial Proposition now being Financed by Eastern Capitalist.

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2 Kilby St., Boston, Mass.



## ANOTHER PIPE-LINE.

One from Bakersfield to the Kern River Oil Field.

Last week General W. H. H. Hart secured from the Kern county board of supervisors the right of way for the immediate construction of a pipe-line from the Kern River field to Bakersfield.

The enterprise provides for a double pipe-line, 6 7-10 miles in length, each line having a capacity of 2,400,000 barrels a year.

The pipe will be six inches in diameter and will be strong enough to sustain a high pressure sufficient to allow a large quantity of oil to be forced through the line under a high pressure. Over 8,000 feet of pipe is paid for and is on the ground ready to be laid. The balance of the pipe is now on the way from the East and is expected daily. The line will be laid in three sections; first, from the railroad which now taps the Kern River field to the property of the Hart Crude Oil company in section 36 where there are now three producing wells and where the Hart Crude Oil company will at once commence the drilling of eight more wells.

The second section of the pipe-line will run from the property of the Hart Crude Oil company to section 24 in 28-27 where there are already several producing wells. This part of the line will tap a large number of wells in sections 25 and 30.

The third section of the line will run from the railroad to Bakersfield.

It is alleged that the switching charge made by the railroad company on the oil producers shipping from the Kern River field has paid for the building of the spur track many times over, and that the building of the pipe-line from the spur track into Bakersfield will undoubtedly force the railroad to withdraw its switching charges. If it does not withdraw them, the producers will undoubtedly take advantage of the pipe-line which will be a common carrier and thus save most of the money which has gone to the railroad for the switching charges.

This pipe-line when completed will supply a very large amount of oil to several large manufacturing concerns now at Bakersfield or in contemplation such as the brick-yards, the smelter and the oil refineries.

The work of constructing the first section of the pipe-line will commence at once.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, January 21:

AZTEC.		
100 at	\$ 90 (S 5)	\$ 90 00
BEAR FLAG.		
500 at	10.	50 00

## CALIFORNIA STANDARD.

300 at	15.	45 00
1,500 at	16.	240 00
200 at	18.	36 00

## CARIBOU.

200 at	1 00.	200 00
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## CLAIRMONT.

100 at	19.	19 00
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## FOUR.

50 at	59.	29 50
1,000 at	60.	600 00

## HANFORD.

6 at	113 00.	678 00
1 at	113 00 (S 90).	113 00
69 at	112 00.	7,728 00
1 at	111 00.	111 00

## HOME OIL.

600 at	3 10 (B 30).	1,860 00
100 at	3 15 (B 30).	315 00
100 at	3 15.	315 00
1,750 at	3 10.	5,425 00

## INDEPENDENCE.

10,025 at	08.	802 00
5,000 at	08 (B 10).	400 00
4,300 at	09.	387 00
10,000 at	09 (B 90).	900 00
4,200 at	10.	420 00
800 at	10 (B 60).	80 00
66 at	06.	3 96
1,000 at	10 (B 15).	100 00
2,866 at	12.	343 92
8,500 at	13.	1,105 00
8,000 at	14.	1,120 00
500 at	15.	75 00
500 at	15 (B 15).	75 00
10,000 at	16 (B 90).	1,600 00

## JUNCTION.

4,700 at	15.	705 00
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## KERN.

175 at	4 00.	700 00
25 at	4 25.	106 25

## KERN RIVER OIL.

20 at	14 00.	280 00
10 at	13 00.	130 00

## LION.

1,000 at	08 (B 30).	80 00
2,000 at	07.	140 00
1,800 at	08.	144 00
7,100 at	09.	639 00
600 at	10.	60 00

## MONARCH.

1,500 at	25.	375 00
300 at	30.	90 00

## MONTE CRISTO.

100 at	1 37½.	137 50
100 at	1 35 (S 90).	135 00
100 at	1 40 (C).	140 00
100 at	1 40.	140 00
50 at	1 45.	72 50
200 at	1 47½.	295 00
100 at	1 47½ (C).	147 50
950 at	1 50.	1,425 00
100 at	1 50 (B 30).	150 00

## OCCIDENTAL OIL.

100 at	18.	18 00
20 at	20.	40 00
500 at	25.	125 00
100 at	24.	24 00

## OIL CITY PETROLEUM.

1,700 at	20.	340 00
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## PEERLESS.

125 at	14 00.	1,750 00
10 at	15 00.	150 00
25 at	14 37½.	359 37
45 at	14 75.	663 75

## PETROLEUM CENTER.

500 at	03.	15 00
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## SENATOR.

200 at	77½.	155 00
--------	------	--------

## SOVEREIGN.

500 at	34.	170 00
500 at	33.	165 00
2,100 at	35.	735 00
50 at	38.	19 00
3,660 at	40.	1,464 00
2,900 at	45.	1,305 00
650 at	46.	299 00
600 at	47.	282 00
200 at	42 (S 90).	84 00
500 at	45 (S 30).	225 00
700 at	44.	308 00

## STERLING.

500 at	2 10.	1,050 00
400 at	2 25.	900 00
100 at	2 40.	240 00
400 at	2 45.	940 00
400 at	2 30.	920 00
100 at	2 50 (B 60).	250 00
1,000 at	2 50.	2,500 00
100 at	2 45.	245 00
200 at	2 60 (B 30).	520 00
800 at	2 55.	2,040 00
500 at	2 65.	1,325 00
100 at	2 60 (B 10).	260 00
1,000 at	2 50 (C).	2,500 00
500 at	2 55 (B 20).	1,275 00
100 at	2 65.	265 00
100 at	2 75.	275 00
900 at	2 85.	2,565 00

1,550 at	2 95.	4,572 50
500 at	3 00.	1,500 00
100 at	2 55 (C).	255 00
425 at	2 90.	1,052 50
100 at	3 00 (B 30).	300 00
100 at	3 05 (B 60).	305 00
100 at	2 85 (S 30).	285 00

## THIRTY-THREE.

40 at	8 25.	330 00
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## TWENTY-EIGHT.

100 at	1 79.	170 00
700 at	1 80.	180 00
500 at	1 75.	875 00
100 at	2 00.	200 00

## WOLVERINE.

200 at	50.	100 00
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120,344 Shares	Amount \$68,249 25
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## EQUITABLE (POOL) GAS.

25 at	2 90.	78 50
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## UNION SUGAR.

50 at	15 25.	762 50
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## UNITED GAS &amp; ELEC. CO.

50 at	34 50.	1,725 00
-------	--------	----------

125 Shares	Amount \$2,566.00
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## Joseph L. King.

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San Francisco, Cal.  
Member of San Francisco Merchants' Exchange and Producers' Oil Exchange.

## DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON DECEMBER 1, 1902, declared a dividend No. 10, of ten (10) cents per share, payable February 1, 1903. Books close January 20, 1903. The address of stockholder W. I. Taze is desired. GURDON BRADLEY, Assistant Secretary

## Paul W. Prutzman

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Refiners of Crude Petroleum Manufacture of High-Grade Asphaltum Illuminating, Lubricating and Neutral Oils Stove Distillates, Etc.

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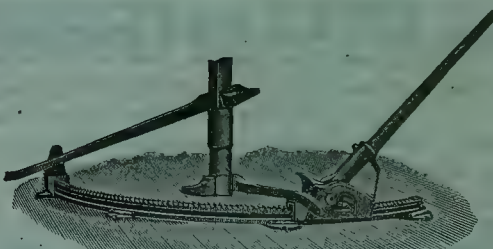
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## The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

## J. BARRETT, Allegheny, Pa.



## HEATING THE OIL.

**Oil in Tank Cars Heated to Run Freely.**

The cold weather has been found to have a tendency to harden the oil that is transferred by the Southern Pacific company into oil cars at the West Oakland yards to be taken to the pier for the ferries, and, to avoid this, each oil car will be provided with an apparatus whereby the oil will remain in a free liquid form for five hours at the least.

The cars will be fitted with a spiral column, and this will be filled with steam furnished by a plant that is being installed at the West Oakland yards near the two huge oil tanks.

When the improvement is completed the oil can be forced into the car by compressed air as is the present custom, and at the same time the steam-heating apparatus will keep it warm, and thus the oil will be kept in a state where it can be readily poured into the ferry boat tanks.

Heretofore the cold weather caused the oil to congeal and consume a whole lot of time in running from the oil car into the ferry boat tanks.

## Where Is Texas Oil?

The following dispatch from New Orleans would indicate that something must be the matter with the transportation end of the Texas oil business:

NEW ORLEANS, Louisiana, Jan. 2.—New Orleans is now without a supply of fuel oil and all the furnaces recently converted to the use of oil burners are being changed back so that coal may be used.

## CALIFORNIA LIMITED

to CHICAGO, Daily



An ideal train for those who seek the best.

## SANTA FE TRAINS

Leave Market-Street Ferry Depot.

	Daily Local	Daily Lim'td	Local Daily	Overl'd Daily
Lv. S. Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. St'kton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	11:20 p	1:40 p	.....	11:28 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	5:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.

8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.

9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.

4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.

8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.

Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

## 50 Percent

a year. How to make it. Write J. D. Johnston, Newport, R. I.

## CYGNET PETROLEUM CO

Capital.....\$150,000  
50,000 shares at \$3.  
Location—Fresno county  
Directors—Chas. L. Fair, president, Blitt W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McKelroy, secretary  
Office—561 Parrott Building.  
Tel—South 184

## STANDARD ROCK OIL COMPANY.

Capital.....\$500,000  
Treasury stock.....\$50,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 100 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. R. J. Ensign  
Offices: 475-76 Parrott Building, 855 Market street, San Francisco Cal

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We carry the Largest stock. Our prices are Equitable.

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Sold Within a Few Years.

97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

The Smith Premier Typewriter is used exclusively by the Telegraph Department and the Sunset Freight Department of the Southern Pacific Railroad Company.

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Descriptive Art Catalogue—Book on Touch Typewriting—No Charge

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School lands may be taken from 160 to 640 acres. Lands abound in all counties in State. They require no condition as to residence on land or cultivation, and carry all minerals and deposits. Only \$1.25 an acre. Easy terms. Fortunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and Cheapest Speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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Cut shows boiler mounted upon frame of machine and gas works. It is usually advisable to have boiler mounted upon trucks separate.



Descriptive catalogue mailed free

The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2825 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

One No. 4 Machine has a record of Thirty-two 800-foot holes in one year.

## Made in Sizes to Suit Territory.

The only machines made that are absolutely without annoying springs. They are simple and efficient, easy to handle at work or on the road. Used in every State and Territory and in many foreign countries.

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## STAR DRILLING MACHINE COMPANY.

AKRON, OHIO.



# UNION OIL TOOL COMPANY

INCORPORATED

Manufacturers of **Up-to-Date Drilling**

AND

## Fishing Tools

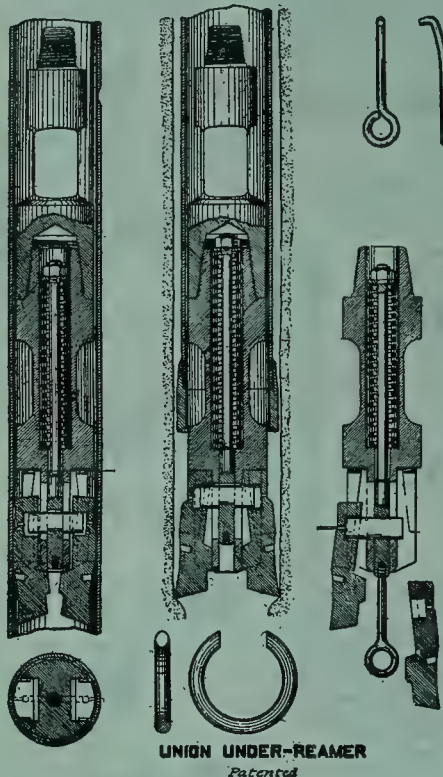
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# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 12.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 24, 1903.

Price 10 Cents.

## OIL WELL SUPPLY CO. PITTSBURGH, PA.

MANUFACTURE EVERYTHING REQUIRED

To Drill, Equip and Operate OIL, GAS and WATER WELLS  
BOILERS, ENGINES, DRILLING and FISHING TOOLS  
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HYDRAULIC ROTARY SYSTEM, SHIFT MADE IN A FEW MOMENTS  
FROM ONE SYSTEM TO THE OTHER.

CABLE SYSTEM FOR HARD ROCK FORMATIONS, HYDRAULIC SYSTEM  
FOR QUICKSAND & CLAY, COMBINATION OUTFITS for any condition.



IMPERIAL WORKS, Oil City, Pa., one of the OIL WELL SUPPLY CO.'S numerous Man'g Plants.

### THE PORTABLE COLUMBIA DRILLER OUTFIT.

ALL STEEL, CAN BE MOVED EASILY, MOTIVE POWER EITHER STEAM  
OR GASOLINE. THE STEAM ENGINE IS TO BE PREFERRED IF FUEL  
IS AVAILABLE.

BUILT IN THREE SIZES, 500 ft., 1000 ft., 1500 ft.

Particularly adapted to hot climates and for test bores.

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THE COLUMBIA STEEL DRILLER.



# 50 cents Asphaltum Refinery 50 cents

A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

## Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

**Treasury Stock, - - \$350,000**

**475-476 Parrott Building, 855 Market Street, San Francisco, Cal.**

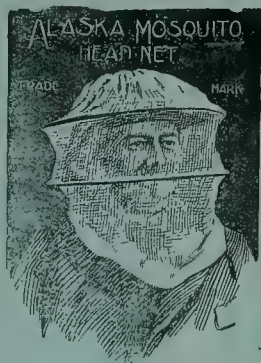
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Proven oil lands in Napa and Coalinga for sale cheap.

AGENTS WANTED in All Large Cities for the Sale of Our Al Refined Asphaltum

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A Perfect Protection Against Insect Pests



Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

Invented for and in general use in mosquito-infested Alaska.

Folds up compactly and goes easily into the pocket.

Made of specially prepared galvanized steel wire and the finest and strongest netting.

Invaluable for hunters, campers and travelers.

Can be worn day or night without inconvenience.

### Made in Two Varieties.

- No. 1. Made of finest netting, sure protection against mosquitos. 50 cents.  
No. 2. Made of very fine, but strong, imported lace, for midges and black flies, \$1.00.

If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

**ALASKA MOSQUITO HEAD NET CO**

Factory, 1927 Haste St., BERKELEY, CAL.

## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

These maps are Copyrighted by the publishers, Barlow & Hill, and can only be used by them and their authorized agent in San Francisco, THE PACIFIC OIL REPORTER.

### PRICE LIST OF MAPS.

Large Blue Prints, 25x25, single map	\$1.50
Large Blue Prints, 25x25, per doz.	15.00
Small Maps, single map	.25
Small Maps, per doz.	1.50
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Small Maps, per 1,000	30.00
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318 Pine Street San Francisco, Cal.



# PACIFIC OIL REPORTER

VOL. 4. No. 12.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 24, 1903.

PRICE, TEN CENTS.

## CALIFORNIA ASPHALT.

**In Every Respect the Equal of the Trinidad Product.**

**Agencies for the California Product Should Be Established In All the Eastern Cities and Large Eastern Supply Points Be Maintained.**

There are practically in use but two kinds of asphalt—one, the asphalt which comes from Trinidad, the other the asphalt which comes from California. The Trinidad product has been practically the only asphalt used in the United States and in Europe for years. It is a first-class asphalt. Great pains have been taken in its manufacture, and, as the result of numerous experiments, the product is now nearly as perfect as this asphalt can be. It commands an extremely high price, first quality Trinidad asphalt being quoted as high as \$35.00 per ton in many of the Eastern cities.

The agents of Trinidad asphalt are found everywhere, and they are a unit in respect to the fact that they all contend that there is only one good asphalt in the market, which is the Trinidad asphalt, and they have been so successful in some cities that calls for bids for asphalt paving stipulate that only the Trinidad article will be used.

The other asphalt is the California asphalt, which is practically a new product. Until within a year it has been manufactured only in small quantities, and much of that which was manufactured was of an exceedingly poor grade, the refiners of California asphaltum oil not having learned how to treat the crude oil successfully, and sometimes the refining being done so carelessly that the product sent out was exceedingly poor and unfit for the purpose intended. The refining of California oil has now been so perfected that California asphaltum is in every respect the equal of the Trinidad asphalt; in many respects it is superior to it.

While the Trinidad asphalt comes from an asphaltum lake in the West Indies, which contains an area of 100 acres, the California asphalt is made from the oil obtained from an area of tens of thousands of acres.

The Trinidad article is a foreign importation; the California article is a product of the United States.

The Trinidad asphaltum should have placed upon it a high import duty. The California asphaltum

will never be subjected to an import duty. The Trinidad asphaltum has its agents and its supply points established in the various large Eastern cities such as Boston, New York, Chicago and St. Louis. The California asphalt as yet has no general agents in any of these points; at least, if there are any such, the PACIFIC OIL REPORTER is unaware of the fact. California asphalt is not found at any established supply point in the East, and, if it is wanted, it can be obtained, as a rule, only by waiting until it is shipped East by freight, which means a delay of from two to six weeks.

There are now over thirty refineries in California making asphalt, and new refineries are in contemplation. The product of these refineries is coming more and more into demand as the excellence of California asphalt is being understood, especially for paving purposes. It has proved to be in every respect the equal of the Trinidad and can be furnished at a satisfactory profit for a price at least one-third less than the Trinidad product.

California manufacturers of asphalt should pool together and establish in the large Eastern cities, agents for the sale of the California product, and each of these cities should be supply points for California asphalt where the asphalt can always be obtained in quantities and of different grades; and can thus be furnished to consumers without delay and in quantities to suit.

To establish agencies and supply points, requires capital. No industry however presents greater inducement for the investment of large capital than does the California asphalt industry. If the capital needed for the establishment of these agencies and supply points can not be furnished by those engaged in the manufacture of the product, then Eastern capital should be induced to engage in the sale of our product in the East, either on a liberal commission basis or by buying our product outright and reselling it.

The time is not far distant when California asphalt will be furnished in the cities on the Atlantic seaboard by the ship load. A large fleet of ships could to-day be kept busy in carrying California asphalt and other products of our refineries from California to the East and returning to this coast with loads of Eastern manufacture.

### NEW REFINERY.

**A Los Angeles Enterprise that Will Soon be Increased.**

Mr. J. H. McNeil, of Los Angeles has been in the city this week. Mr. McNeil is president of the British-California Oil company, which has a number of producing wells in the Los Angeles oil district. The company has recently acquired the refinery known as the Coombs refinery, and will henceforth operate it themselves.

This refinery is located in the southwestern part of Los Angeles, on the corner of Vernon and Santa Fe avenue, near the Santa Fe railway. The refinery has a present capacity of 200 barrels of crude daily, but this capacity will at once be increased to 500 barrels.

The refinery manufactures asphalt, lubricants, engine and stove distillates, fuel distillates, etc.

President McNeil has every confidence in the future of the oil refining industry, and believes in pushing matters not only in the East but in England and in Scotland. Already he is negotiating for the sale of asphalt in Europe, and believes that our California asphalt should have a large and constantly increasing sale there. He is full of enthusiasm, his company has capital back of it, and there is every reason to believe the company will have great success in manufacturing a high grade article and of disposing of it advantageously.

### THE FRESNO REFINERY.

**A Recent Enterprise That Is Proving a Success.**

The refining plant of the California-Fresno Oil company is located one and one half miles south of Fresno on the line of the Southern Pacific railroad and the plant covers three acres of land. It has a capacity of 150 barrels of crude oil daily and is thoroughly equipped with modern machinery for the production of kerosene, gasoline, benzine, asphalt, brown and lemon neutral oil. The refinery also makes a specialty of the manufacture of 52° gravity engine distillate and also produces an almost water white stove oil

of 34° gravity. The refinery expects shortly to be able to produce red engine, dynamo, separator, compressor and green lubricating oils.

The crude oil used in the refinery is obtained almost entirely from the Coalinga field, the officers of the company being gentlemen who are themselves large producers of oil in this field. The president of the company is Mr. W. A. Spinks, the world-renowned billiardist who is now one of the most enthusiastic oil men in California, and is the leading spirit in the Carobou Oil company, which has a number of producing wells on its valuable territory in the Coalinga field. The vice-president is Mr. H. H. Hart, the successful Alaska miner, who is also the president of the Sauer Dough Oil company in the Coalinga field, which also has several producing wells. The secretary is attorney W. H. Sigourney, who is also interested in the Caribou Oil company and in other successful oil companies.

The refinery was unfortunate in having its plant badly damaged by fire some weeks ago, but the damage was immediately repaired and the company is now in a better condition for the manufacture of a high grade product than ever before. It has no trouble in disposing of its product, as the local demand is very great.

Its asphaltum should be in great demand for street paving purposes in the larger towns of the San Joaquin valley, such as Fresno, Merced and Modesto.

As its business increases it will undoubtedly enlarge its plant and will be a large consumer of Coalinga oil.

### Queen Oil Company.

Dr. J. N. Prather of Seattle is the president and manager of the Queen Oil company which has two producing wells in Sunset at the terminus of the railroad. The doctor has just returned from an Eastern visit. While at St. Paul, Minn. he submitted a large sample of his oil to a noted chemist who succeeded in solidifying it by means of a process known to himself alone. The solidified petroleum looks very much like a briquette, yet it is claimed not to be a briquette and to contain no admixture of coal dust, saw dust or wax. The doctor also has another sample of solidified petroleum in the shape of a soap which is valuable on account of its medicinal qualities.

The Queen Oil company intends to sink more wells immediately. It has made very satisfactory contracts for oil in Seattle.



## UNQUALIFIED PRAISE.

### High Compliments Given the New Year's Edition.

#### How It Was Regarded By Prominent Oil Men and Papers.—A Second Edition Will Probably Be Published.

Every mail brings orders for the New Year's edition of the PACIFIC OIL REPORTER. These orders came in so rapidly, and many of them were so large in the number of papers wanted, that the edition has been entirely exhausted so far as supplying anything but orders for single copies, and these will be sold for twenty-five cents each, as but a very few are left.

The publisher has been urged to issue a second edition, and will do so if orders continue to pour in as they have for the last two weeks. In the second edition all the main features which were in the first will be presented, and new features will be added which will make the second edition an improvement on the first.

Orders for advertising and for extra copies should be sent in at once. Companies who desire to have their oil properties mentioned or pictured in this second edition should send in articles and photographs at once.

#### Best Issue of Any Oil Publication.

LOS ANGELES, January 4, 1903.

W. B. WINN, ESQ., Editor and Publisher PACIFIC OIL REPORTER, San Francisco, Cal.

DEAR SIR: We are in receipt of the New Year edition of the PACIFIC OIL REPORTER, which we have carefully read, and have great pleasure in commending it as being the best issue of any oil publication issued on the Pacific coast. It contains a vast amount of information relative to the oil industry, and we heartily congratulate you upon your paper and trust that the year 1903 will bring you a great increase in your subscription list, for certainly your paper warrants it.

With kindest personal regards, we remain,

Yours truly,

C. D. BARNES, Manager National Supply Company.

#### Finest Edition Published.

LOS ANGELES, CAL., January 8, 1903.

W. B. WINN, ESQ., Care PACIFIC OIL REPORTER, San Francisco, Cal.

DEAR SIR: I received your New Year's copy of the PACIFIC OIL REPORTER, and wish to state that I consider it one of the finest editions that have ever been published on the Pacific coast. You certainly deserve credit for getting out such an edition.

Wishing you a Happy New Year, I remain,

Yours respectfully,

R. H. HERRON.

#### Very Creditable.

The special New Year's edition of the PACIFIC OIL REPORTER is a very creditable publication. To such as are interested in the California oil fields it contains much information of value touching their development.—Titusville (Pa.), Herald.

#### Is a Constant Guide.

The PACIFIC OIL REPORTER, the leading journal on the Pacific coast devoted to oil interests, got out a splendid New Year's edition, replete with fine half-tone engravings of all the leading oil-producing sections of this State. The REPORTER is to oil men what the Scientific American is to mechanics—a constant guide that keeps one fully informed upon all topics pertaining to the industry. Oil men professing to keep abreast of the times cannot afford to be without it.—Santa Maria Times.

#### Full of Valuable Information.

The PACIFIC OIL REPORTER, published at San Francisco, has issued a 56-page New Year's edition which affords a comprehensive review of the conditions of the oil industry on this coast, and shows a gratifying increase for the year in the number of producing wells and the amount of their output. All persons who are at all interested in this important and growing industry will find the columns of this special edition full of valuable information.—Orange Post.

## HAS MADE A START.

### Government Changed Steamer from Coal to Oil Burner.

Presumably as a result of the favorable reports made upon the use of oil as fuel on the steamer Mariposa, the government light-house tender Madrono is to be converted into an oil-burner, and will be the first government vessel to be thus equipped. Bids for making the change in her interior arrangements are to be asked for immediately. The trip made by Lieutenant Wenchel of the navy on the first trip of the Mariposa, and his very favorable report on the use of oil as a substitute for coal in her furnaces, and the recent examination of the steamer Enterprise by official representatives of the navy, revenue marine and lighthouse branches of the government are believed to have brought about this action of the government in ordering the change in the Madrono. In any event, the conversion of a government vessel into an oil-burner is looked upon as an indication that the new fuel may before long be substituted for coal in many others, and may eventually supersede coal altogether.

#### The Illinois.

The Illinois Oil Bond company, at present operating in the Half-moon Bay district of California, will soon commence drilling in Alabama as the following from the

Birmingham (Ala.), Age-Herald states:

Oil has been discovered within seven miles of Piedmont, in Calhoun county, eighteen miles from Anniston, by the Piedmont Oil company, at a depth of 1,500 feet. The concern has been boring for several months and worked very quietly. The story of the discovery was given out by another prospector, who, with a large concern, has secured leases upon 30,000 acres of land almost surrounding the well at which the oil was found. The concern securing the leases is the Illinois Oil Bond company, composed of Chicago, San Francisco and Anniston men, who now have four large tracts of oil lands in California. These men are now in Anniston, and have closed a deal with a Beaumont well driller to begin drilling on their property at once, three miles from the Piedmont oil well. Another concern has drilled 500 feet to a strata so hard that additional machinery had to be secured before they could proceed. They are installing the needed machinery. The discovery of the oil has caused no excitement yet, as it is not generally known. The property leased by the Illinois Oil Bond company lies in three counties, Calhoun, Etowah and Talladega.

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**STRICT REGULATIONS.**

**Secretary of the Treasury Issues Orders Concerning Oil Burners.**

The Secretary of the Treasury has issued the following regulations relating to the issue of permits to steamers to use petroleum as fuel for motive power:

"To Supervising Inspectors of Steamboats and others whom it may concern: Referring to the provisions of section 4,474 of the Revised Statutes, authorizing the Secretary of the Treasury to grant permission to the owner of any steam vessel to use petroleum or other mineral oil or substance in the production of motive power, your attention is called to the fact that such authority is qualified by the requirement that no such permission shall be granted unless upon certificate of the supervising inspector of steamboats for the district where registered, and other satisfactory proof that the use of the same is safe and efficient.

"In view of the recent explosion of a fuel oil tank of a steamer lying at the port of San Francisco, in which a number of lives were lost, it is deemed advisable by the department to instruct you to use extra precautions before certifying to the department; to

carefully examine, personally, the oil-burning plants of the steamers applying for permission to use petroleum as fuel, and not depend entirely upon the blue prints usually accompanying the supervising inspector's certification of the safety in the method of using petroleum as fuel.

"The law requires other satisfactory proof that the certificate of the supervising inspector as to the safety and efficiency of any invention or process for the utili-

zation of petroleum or other mineral oils or substances in the production of motive power before permission to use the same shall be granted.

"Every certificate to the department should include the signatures of two responsible persons known to be experts in the installation of oil-burning plants on steamers."

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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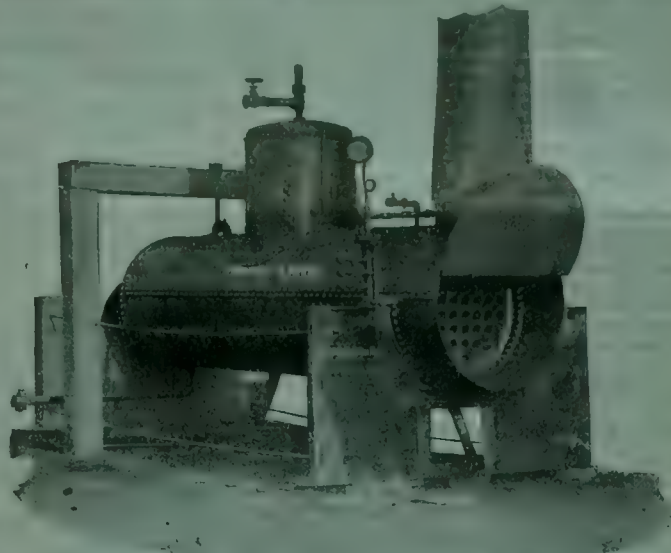
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	Gallons	Value	Naphtha, including All Lighter Products of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been distilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
October, 1902.										
British Columbia.....							156	\$107		
Costa Rica.....					580	\$109				
Guatemala.....					4,550	879	40	20		
Honduras.....					280	61				
Salvador.....					8,811	1,595	50	35		
Mexico.....					550	74	23	8		
Columbia.....					550	80				
French Oceania.....			9,130	\$1,198	770	154				
Japan.....							742	168		
British Australasia.....							500	112		
Alaska.....					1,650	214				
Guam.....					4,620	872				
Hawaii.....	597,912	\$19,930	44,850	5,086	28,740	5,477	2,625	823		
Tutuila.....					20	5				
Total.....	597,912	\$19,930	53,980	\$6,284	51,121	\$9,520	4,136	\$1,273		
November, 1902.										
Costa Rica.....					1,350	\$272				
Guatemala.....					4,550	903	200	\$75		
Honduras.....			440	\$66	800	150				
Nicaragua.....					190	40				
Salvador.....			720	131	4,150	820	40	26		
Mexico.....					100	30	579	225		
Chili.....							2,000	515		
Ecuador.....					300	58				
Peru.....							101	57		
Japan.....							307	150		
British Australasia.....							1,663	532		
All Other British Oceania.....					140	28				
German Oceania.....			7,800	882			416	229		
Alaska.....					2,131	328	1,080	431		
Hawaii.....	1,364,000	\$43,100	23,377	3,074	107,581	15,265	11,203	5,959		
Tutuila.....					1,360	280				
Total.....	1,364,000	\$43,100	32,347	\$4,153	122,752	\$18,174	\$17,589	\$7,298		
December, 1902.										
Costa Rica.....					900	\$194				
Guatemala.....					3,970	786	319	\$131		
Honduras.....			1,160	\$235	500	107				
Nicaragua.....					10,000	2,050				
Salvador.....					6,360	1,072	130	40		
Mexico.....					100	35	280	98		
Chili.....							1,717	377		
Ecuador.....			1,580	291						
British Australasia.....							1,067	265		
French Oceania.....					1,050	22				
Alaska.....					550	116				
Hawaiian Islands.....			38,840	4,688	93,600	12,773	12,798	4,742		
Total.....			41,580	\$5,214	117,130	\$17,365	16,311	\$5,953		



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

## TERMS

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STRICTLY IN ADVANCE

MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY, JANUARY 24, 1903

As is the custom of every enterprising newspaper a clerk is employed by the PACIFIC OIL REPORTER to send out sample copies of the paper to those who may be interested in the oil industry of California, and who may not be subscribers to the paper. In the pursuance of this duty a clerk of this office recently sent a sample copy of the paper to Mr. B. F. Brooks, manager of the sales department of the Associated Oil company. Accompanying the sample copy was a politely-worded letter calling attention to the excellence of the PACIFIC OIL REPORTER as a medium of oil news, and requesting a subscription. The letter was addressed to Mr. Brooks at Bakersfield, where Mr. Brooks formerly made his headquarters as a director in an oil company.

In due time the following letter was received from Mr. Brooks written on the regular letter paper of the Associated Oil company:

SAN FRANCISCO, January 9, 1903.  
MR. W. B. WINN, Editor PACIFIC OIL REPORTER, San Francisco.

DEAR SIR: Your favor of the 6th addressed to me at Bakersfield duly at hand here.

Will say that I may be a little bit dull in failing to see the items in your paper that are conducive to the interest of the company in which I am interested, and, as I am from Missouri, will ask you to kindly show me before I forward price of subscription.

Yours truly,  
B. F. BROOKS.

The above letter was undoubtedly intended by Mr. Brooks as a specimen of highest wit; at any rate it is an illustration of Mr. Brook's idea of wisdom and intelligence, and clearly indicates the gentleman is mentally capable of filling the important position of

sales manager of the Associated Oil company, which, by Mr. Brook's advice, has contracted to sell several millions of barrels of oil at less than fifteen cents a barrel at the well for a period of several years, when others are obtaining even now from twenty to thirty cents a barrel. It also, clearly indicates why the Associated Oil company is not able to pay dividends, and probably will continue to be unable to pay dividends as long as its affairs are conducted by a gentleman of Mr. Brook's business and mental caliber. Perhaps the fact that Mr. Brooks is sales manager explains to a certain degree why the Associated Oil company is at present in such disrepute, and why the stockholders connected with the companies which are affiliated with the Associated Oil company are clamoring for a change of policy and management.

We do not believe in casting pearls away, and we regret having wasted a valuable copy of the PACIFIC OIL REPORTER upon a gentleman whose mental caliber is similar to that of Mr. Brooks. However, if the gentleman desires to obtain information in regard to the oil industry in general and how the stockholders of the Associated Oil company regard his policy in particular, we should advise him to subscribe at once for the PACIFIC OIL REPORTER.

Subscriptions are payable strictly in advance.

Just now there is considerable talk about fixing the flash test for fuel oil used in California at 150°, instead of 110°.

Those who favor establishing the flash test at 150° say the fatal explosion on the steamer Progreso makes a requirement of a flash test of 150° imperative in order to avoid similar fatalities.

There is no doubt but that the present agitation is justified, not only on account of the welfare of the public at large, but on account of the welfare of the oil industry.

If the industry is properly regulated and protected against those who foist a dangerous oil upon the public, there is no telling to what great lengths the oil industry will advance.

In establishing a flash test care should be exercised not only with regard to the safety of the public, but also with regard to the welfare of the oil industry, especially the fuel oil industry.

A flash test can be established at 250°, and oil can be furnished that will also stand this test. But this oil is limited in quantity, and its price will make its use almost prohibitive as compared with coal.

The same is true in a less degree of oil that will stand a test of 200°, and in still less a degree of oil that will stand a test of 150°.

Some of the Coalinga oil will

not stand a test of 100°, or even 75°. It is not fit for fuel.

Much of the Coalinga oil and also of the Fullerton oil is well adapted for fuel, and will stand a flash test of 110° and higher. It will not stand a test of 150°. The amount of this oil that can be produced in California is in excess of 10,000 barrels per day. A flash test of 150° would bar out three-fourths of it.

Experts' opinion should be obtained as to whether this oil, which will easily stand a flash test of 125° is a safe fuel oil. If it is safe, no flash test should be adopted which should bar it out. If it is not safe, then a test of 150° would effectively stop its use.

If regulations should be adopted, they should govern not only the kind of oil used, but the system of oil storage; that is, the class of material to be used, the manner in which it is installed, and the proper ventilation of the tanks.

For a year and a half the PACIFIC OIL REPORTER has been advising its readers to invest in the stocks of producing oil companies.

During the greater portion of this time the oil business has not been in a very prosperous condition. Production was much greater than consumption. Foolish competition in selling oil brought the prices ruinously low. Transportation facilities were woefully inadequate. In spite of existing conditions we advised the purchase of stock in producing companies that were well managed, stating our belief that the oil business was in the worst condition it could ever be in in this State; that the price of stocks was lower than it would ever be again, and that an investment of a few thousand dollars would in the end prove extremely satisfactory.

Those who followed our advice and bought stocks are now congratulating themselves. Stocks, many of them, are double in value what they were a year ago; some of them treble in value. They have not reached the top notch yet.

There are dozens of stocks that can be bought for one-quarter, yes, one-eighth of their true value.

Anyone with money to invest can double and treble it in a few months by investing in oil stocks. If you do not know enough about the business to choose for yourself, go to a reliable oil stock broker on whose judgment you can rely, and tell him to invest your money in stocks for you. Let him pick out the stock of three or four or more companies. One of the companies may not prove very successful, but you will make enough money out of the balance to more than satisfy you with the investment.

Do not wait until stocks have reached an exorbitant figure. Buy now while stocks, most of them, have not reached their real worth.

As proof of the truth of this advice, examine the list of sales of oil stocks for this week as reported in another column.

## KERR'S REPORTS.

This Interesting Sheet Has Overreached Itself.

We have some interesting facts about Kerr's Reports, a so-called rating agency, whose editor has never seen even one of the California oil fields or any other oil field; an editor who would not know an oil derrick from a bunkhouse, or a drilling engine from a locomotive, yet he has known enough to plunder Kerr's Reports corporation.

Kerr's Reports was incorporated by honorable business men as a business measure to carry on a rating agency that was needed in the oil business, and if it had been properly managed would have been not only profitable to its stockholders, but valuable to investors. Kerr's Reports has been been prostituted by ignoble motives, and is wholly worthless as a rating agency.

The wise editor of Kerr's Reports a little over a year ago was stranded in a little village over in Iowa. He aroused the sympathies of a relative in this city, who brought him to this coast and provided for him for upwards of a year, securing for him a position with Kerr's Reports; and when that well-intentioned relative refused to be "bled" any further, he was "written up" in Kerr's Reports last issue, where innuendo and false statements were used to injure the oil companies he represents and to slander this relative who had been "bled" for several thousand dollars. The relative referred to is J. E. Kerr, of this city, an honorable business man and practical oil man, who commands the respect of his associates and stands high with business men generally, a man who is making a success of the oil business, having recently brought in a flowing well for the Wisconsin Gold Bond Oil company, and having drilled 500 feet in about thirty days with one crew on a well for the Paxton Gold Bond Oil company.

The editor of Kerr's Reports, we are reliably informed, is not an officer or director of the company, yet the president of the company states over his own signature that the editor of Kerr's Reports has collected monies of the corporation, and used the same for his own private purposes without rendering an account to the corporation, which is a penal offense, and the officers of Kerr's Reports state the so-called editor will be prosecuted to the full extent of the law.

Those who know the editor of



Kerr's Reports place a proper estimate upon his editorial abortions. Even Uncle Sam refuses to let the silly little sheet pass through the mails unless a one-cent stamp is stuck on each copy.

The editor of Kerr's Reports has frequently said nasty things of legitimate oil companies and reputable men. He has also attacked this paper, but, so far as we are concerned, he is too small to notice.

We have some very interesting facts that we will give at a later date.

### THE ASSOCIATED.

**Short of Oil and Retrenchment the Order of the Day.**

For some time past the Associated Oil company has been reported as finding it difficult to fill its oil contracts. On account of the steady flow of water in its portion of the Kern River field, owing to the reckless pulling of casing, and neglect in shutting off the water, the output of oil from many of its wells has greatly decreased. The statement is made by those posted on the affairs of the Associated that at present the company is not able to supply its contracts from the daily output of its wells by over 2,000 barrels a day, and that it is now forced to draw heavily upon its storage supply in order to ship the necessary amount of oil. New wells are being drilled as rapidly as possible, and strenuous efforts are being made to shut off the water in the wells that are now pumping water in place of oil.

It is also known that the Associated has abandoned the Oregon field after having secured many contracts for furnishing oil at low rates, and has canceled these contracts, not being able to secure satisfactory transportation rates by sea. During the month the Associated has lost the services of several of its most able men, among them the gentleman who has ably handled all its transportation affairs, and arranged for the rail and sea transportation of its oil. Although in small matters the company is curtailing its expenses and lessening its working force no intimation is offered that any of the big salaries have been reduced and the monthly division of \$8,000 among the favored few still continues. Meanwhile, the stockholders of the companies affiliated with the Associated are growing more restive as they realize how powerless they are to change the order of affairs. Some of the companies connected with the Associated are paying dividends; but these are paid on account of the advantageous contracts secured by the oil companies themselves before joining the Associated. The lower priced contracts made in the last year leave little or no margin of profit, and now that the output of the

wells is decreasing rapidly owing mainly to water, this small margin of profit is almost entirely wiped out, leaving only enough to pay high salaries and office expenses.

### ANOTHER REFINERY.

**One With a Capacity of 1,200 Barrels to Be Started.**

The Southwestern Oil Refinery company is engaged in erecting buildings for a refinery in the Kern River oil fields, near the Standard Oil company's tanks. The refinery will have a capacity of 1,200 barrels.

It is expected the refinery will be in operation June 1st. The brick foundations for the refinery are being laid for the buildings, which will be built of corrugated iron. All the necessary machinery has been ordered, and the contract calls for its delivery in ninety days.

The plant will be started with three stills, with a capacity of 600 barrels, but the buildings will be built large enough to double the output whenever determined upon.

The refined product will consist of distillate, asphalt and the various grades of lubricating oil. About 120 tons of asphalt will be made daily, the sale of which has already been contracted for for a period of five years. A new process will be used in refining the crude oil, which is said to bring about better results.

In addition to the refinery buildings there will be a number of other structures erected, such as cottages, bunk-houses, tool sheds, asphalt warehouses, etc.

C. H. Ritchie is the superintendent of the oil refinery company. B. C. Calloway will be the manager of the refinery. The refinery will be connected with a spur track from the Southern Pacific, and about 1,000 feet of rails will be laid.

Mr. Ritchie is the superintendent of the Potomac Oil company.

### It Speaks for Itself.

WHITTIER, CALA., Jan. 15, '03.

Editor PACIFIC OIL REPORTER: I wish to announce that I will not attempt to collect royalties for the use of my patented process for shutting off water from oil wells, and anyone is at liberty to use the process whenever they wish. The process is worth millions to California and to enforce my rights would require spying and litigation. So I have decided to forego any profit and present it to the oil fraternity.

WM. PLOTTS.

### Car Shortage.

The Southern Pacific company has to deal with the greatest car and locomotive shortage yet known, taking the amount of business and facilities for handling it into consideration. And the worst phase of the case is that as the days go by this shortage will increase instead of diminish.

## PACIFIC COAST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### CONTRA COSTA.

The Contra Costa company will start drilling another well on their land about eight miles from Antioch, about one-quarter of a mile from where the first well was drilled. This well was not completed, although a fine quality of oil was obtained in limited quantities, but enough to prove the existence of oil.

#### GLENN.

The attempt is being made to put the well of the Washington-California Oil company, at Fruto, down to 2,300 feet if money can be raised.

#### KERN

A Sunset company recently contracted to sell their oil at twenty-one cents.

The Mountain Boy Oil company will soon resume operations in the Midway district.

A large sale of oil is reported at 16½ cents from a company badly in need of ready cash. The oil is not first class.

The Standard Oil company are putting the roof on their 335,000-barrel reservoir, at Tank City, near Bakersfield.

It is reported that the Kern River Oil Company intends to sink more wells, and that 11½-inch casing will be used in one.

The Eastern Consolidated Oil company, which has six wells in the Kern River fields, has decided to put down four or six more wells.

The Shamrock well on section 4,30-22 is flowing and spouting. The daily production for the past month has been in the neighborhood of 600 barrels.

The St. Paul and Sunset Oil company, near the Queen wells, has finished up its first well, and, according to estimates, will prove a very thrifty producer.

John H. Miller, of the Diamond Oil company, reports having refused a contract for 1,000 barrels of oil per month, at 30 cents, with the Navajo Refinery company.

Considerable activity is to be witnessed in the McKittrick field. The shipments average about fifteen cars daily, and more would be sent out if cars were obtainable.

The Sedalia and California, in the McKittrick field, is adding to its list of producers. The company has three completed wells and is at work on two more. The old wells have been pumped for months past.

The King Refining company, located on the Aladdin property

in the Kern River district, has at last received its stills and is now putting them in place. The stills have been a long time in transit, but now that the plant is about completed, the work of refining the crude petroleum product will shortly be in progress.

The West Shore, one of the pioneer operators in the Kern River field and a big producer of oil, has improved its boiler plant by removing the old and installing four new ones—two 50 and two 40-horse-power. The new equipments will shortly be in place, and the company's facilities for handling their product greatly improved.

The Kern Brokerage company, of Bakersfield, have signed contracts with six drilling companies to develop their land in R. 21, T. 31, and R. 22, T. 32, in San Luis Obispo county. They have one well down 250 feet on this tract, which shows a splendid deposit of oil. Prof. Ireland, as well as many other oil experts, pronounce this to be one of the best prospects in the United States. Rich sulphur and gypsum beds are found there, and G. P. Guibert, who has the handling of this land, says he confidently expects to startle the world when this field is developed. They control 9,000 acres of this land. The development work will start in a very short time. The Midland Pacific will be accessible when built, and will enable them to market their product.

Isaac E. Blake is now in the field selecting the route from Sunset to the coast at Port Harford for the Midland Pacific railroad. Kelley, Endicott & company, of Boston, say they have bought \$2,000,000 worth of bonds of the road, and Mr. Blake will let some contracts for construction work before the end of the month. This road will open up the Midway-Sunset field, and oil producers will soon be able to ship their oil to the coast. A letter received by President John M. Wright, of the Peerless from E. P. Vining, late manager of the Market Street Railway, and dated Brookline, Mass., January 16th, says: "It looks as if construction work will be begun on the Midland-Pacific next month, and I rather expect to leave here about February 1st to go out to attend to it." This looks more like business than anything that has appeared yet.

Messrs. Jewett & Blodgett, operating in the Sunset district have allied local interests in that field and interested foreign capital, enabling them to form a



gigantic corporation to be known as the California Consolidated Oil Fields company, which is now in process of incorporation. Such financial arrangements have been made as will insure the immediate construction of an oil pipe through the Sunset and Midway fields and the installation of ample storage tanks at the terminus of the Sunset railway. The present refinery is being enlarged, and it is the intention to quadruple its former capacity at once. A telephone system will also be installed, and the water distributing system enlarged and extended. Much development work is in contemplation, and it is believed that with transportation and tankage facilities provided all producers in the field will be stimulated to renewed activity. While new interests will be brought in, the control will still remain here with Messrs. Jewett & Blodget and associates. The alliances made will enable the new company to avail of market heretofore unreachd.

## LOS ANGELES.

Broken casing in No. 12 of the Murphy Oil company at Whittier will necessitate drilling up two lengths. Remarkably good time has been made on this hole. It was started October 27th, and two weeks ago it was 1,875 feet deep, less than ten weeks.

The Central Oil company at Whittier last week put two more

wells on the pump. No. 27, a new well on the Murphy line is a deep one. No 13 has been deepened, getting 120 feet more oil sand. Both are full of oil and promise to be good producers.

## SAN BENITO.

The Union Oil company filed last week its labor affidavits on thirteen locations in the Vallecitos covering 1,840 acres of land. Besides the above mineral locations, this company owns the oil right in 2,000 acres of titled land which it secured from the land owners a few years ago. At present the Union is not drilling in that section, having shut down two years ago after thoroughly prospecting and demonstrating that oil existed in that region. The company is faithfully looking after its interests in the Vallecitos and at no distant day will doubtless commence active operations. Surrounding this company's lands are the holdings of several oil companies which are getting ready to commence operations. Five rigs are now in place and many more will soon be erected. From present indications a few months will see the Vallecitos an active and prosperous oil field.—Hollister Free Lance.

## SAN MATEO.

Frick & Parker are still drilling their deep well in the Tunitas.

The last Gulberson well is over 1,700 feet deep. Drilling still continues.

Just as we go to press the telephone message from San Mateo states that the Wisconsin Co. struck a great flow of oil at 1310 feet. The oil was sent 120 feet over the derrick, and is still flowing. Great excitement in this oil district. Oil struck is 50° quality, is refinable for illuminating purposes, and is worth \$1.50 at the wells.

After three months work Messrs Mahoney & Youle have got the well of the San Mateo Oil company, near La Honda, cleaned out, and are going ahead. The well is now down over 1,100 feet, and gas and oil seepages are plentiful.

## SANTA BARBARA.

The Southern Pacific Railroad company has begun drilling for oil on its recently acquired territory at Shuman canyon, near Casmalia, and to facilitate matters, has put in an extensive siding. Cars run to within a few feet of where the first well will be. Preparations are under way to sink four more wells. The company aims to develop sufficient oil to supply its demand on this division, all passenger engines being equipped with oil burners.

## VENTURA.

The new Weldon Oil company on the Hartman property is down seventy-five feet in its new well. At a depth of eighty-five feet in the well first begun, the hole became crooked and rather than take the time to straighten it, the drillers pulled the casing and moved the rig about four feet.

## Oil At Buenos Ayres.

A decree has recently been published in the Argentina Boletin Oficial, authorizing the establishment by the Colonial Oil company of New Jersey, which is affiliated with the Standard Oil company, of petroleum tanks in the port of Buenos Ayres, and granting permission to erect the necessary works for the loading, unloading, and storage of oil in that port. In a subsequent issue of the Boletin Oficial another decree appeared granting permission to Messrs. Arthur Holland & company, agents of the Shell Transport and Trading company, Limited, to establish tanks, etc., for the storage of petroleum in the port of Buenos Ayres.

## Heaviest Oil Train.

According to railroad men the heaviest oil train in point of tonnage ever hauled in the State of California was run on January 1 between Oil City and Bakersfield on the Southern Pacific. The train consisted of sixty-six of the largest oil cars, amounting to 102 of the smaller cars or a total tonnage of 8,900,000 pounds.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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### Oil and Gas Patents.

The following recently granted patents relating to oil and gas are reported expressly for the **PACIFIC OIL REPORTER** by J. M. Nesbitt, patent attorney, Park building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Asphaltum collector for oil burners, G. W. Arper, Oakland, Cal.; No. 715,234.

Pump for oil wells, A. B. Gabagan, Glade Mills, Pa.; No. 715,253.

Oil burner, W. D. Dawson, Mangum, Okla.; No. 715,354.

Drill bit, A. S. Jones, Clifton, Kansas; No. 715,385.

Method of burning liquid fuel, H. B. Cary, Los Angeles, Cal.; No. 715,638.

Hydrocarbon burner, A. F. Chase, Boston, Mass.; No. 715,639.

Casing screen, Conrad Lindstrom, El Campo, Tex.; No. 715,676.

Oil burners: E. R. Waterman Helena, Mont.; No. 716,912. W. S. Jenkins, Chelburne, Tex.; No. 716,049. C. W. Sievert, Los Angeles, Cal.; No. 716,121.

Method of treating mineral oils or the distillates or residuals thereof, J. S. Stewart-Wallace, Knock, Ireland, and W. B. Cowell, London, England; No. 716,132.

Well casing swage, Edward North, Los Angeles, Cal.; No. 716,466.

Oil-burning furnace attachment, J. R. Scott, Oakland, Cal.; No. 716,486.

Oil-burner, V. F. Lassoe, New York, and L. D. Lovekin, Ardmore, Pa.; No. 716,724.

Crude oil-burner, D. E. Smith, Denver, Colo., assignor to the Colorado Crude Oil-Burner Co., same place; No. 716,849.

Device for adjustably uniting the rims and spokes of well-drilling apparatus—wheels, pulleys, etc., Bryant Pedman, Marietta, O., assignor to L. D. Shryock, same place; No. 716,872.

Means for extinguishing fires in oil tanks, W. F. Gaul, Green Bank, N. J.; No. 716,885.

Oil-burner, W. L. Mersfelder, Norwood, O.; No. 716,918.

Apparatus for raising liquids such as oil from oil wells by direct air pressure, Robert Stirling, Baku, Russia; No. 717,048.

Well-drilling machine, L. A. Hardison, Santa Paula, Cal.; No. 717,095.

Bottom and packer for well casing, James T. Callanan, Butler, Pa.; No. 717,160.

Underreamer, J. C. Swan, Marietta, O.; No. 717,469.

Oil-burner, G. W. Smith, San Jose, Cal.; No. 717,937.

Tube extractor, Frank McWilliams, Duquesne, Pa.; No. 718,066.

### Stole Oil Well Supplies.

J. G. Pelton, a well-known oil driller and a resident of Bakersfield, is in jail, charged with having stolen over \$2,000 worth of tools and supplies from the property of the Commonwealth Oil company. Pelton has made a complete confession, implicating one L. G. Napier as an accomplice, whom the officers are holding as the main witness against him. The works of this company are in an isolated locality and operations were discontinued there some time ago. When an officer of the company visited the well he found that the thieves had carried away a new engine, 1,200 feet of manila cable, 1,500 feet of sand line and other tools and paraphernalia.

Napier confesses to having been

with Pelton upon his marauding expeditions, but says he was acting only in the capacity of a hired man, presuming that his employer, Pelton, had the right to the property he was taking. Pelton is a successful driller and has been in the employ of many well-known companies.

### Tubular Oil Carrier.

A model oil vessel, recently built by the Canadian Tubular Steamship Oil Transportation company, has had her trial trip on the St. Lawrence. It is stated that the vessel will carry more oil, at less cost, than any other form of tank steamer; is able to load and discharge her cargo more quickly; and there is no danger of her being wrecked at sea.

This tubular steamship is described as an elongated cylinder with cone-shaped ends, enclosing two other concentric cylinders, an air space between the middle and outer cylinders, and a space for cargo between the middle and inside cylinders. This longitudinal space is divided by cross sections or partitions into tanks subdividing the boat in its length every twenty feet, causing a solid bulkhead, creating a non-sinkable ship.

### Beaumont Refinery.

Prof. A. Thomas, who organized the National Refining company and is erecting a refinery at Beaumont, is the inventor of a new process of refining oil. By his method of refining high grades of naphtha and lubricating oils are secured. The process deodorizes and desulphurizes the oil and eliminates all foreign matters, resulting in a pure high-grade oil.

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### In Japan.

Mr. I. Asada writes from Japan that he has purchased a complete Standard rig from California for the purpose of drilling for oil near Kobe, Japan, with every reason to expect to strike oil in paying quantities and of a high grade.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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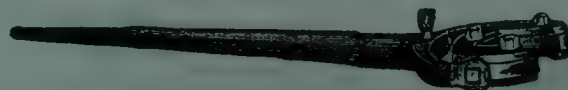
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### Los Angeles Stocks.

Everything is moving on the Los Angeles Stock Exchange, and fortunately in the right way. There is only one tale to tell regarding oil stocks, and that is the tale of advancing prices. Early in the week Central crossed the Board at 73 cents. Although this was an advance of 23 cents over former prices, before the week had closed the price had rose to 78 cents. Although the bidding has been strong since, none has been offered at less than 80 cents. Reed Crude opened early in the week at 33½ cents and reached the high point of 34½ cents, towards the close falling back to 34½ cents. Westlake, which has been a sort of laughing-stock on the floor of the Exchange, rose steadily under spirited bidding from 2¾ to 4 cents. Nearly every other oil stock on the list has held firm, and the prospect is good for still further advances all along the line.

The unlisted oils are receiving slightly more attention, although there is not the same proportionate advance in the prices of these stocks.

Among the mining stocks Golden Argus still remains a favorite at from \$16.00 to \$17.00. The bids on Butte Lode are steadily advancing although little trading results. The last quotations are \$27.50 bid. Bisbee West is a trifle off, as are also Verde King and Bisbee Belle. Hudson has not been as active as usual, although this stock seldom fails to bring out a bid of 9 cents or better, and is never offered at less than 10 cents.

Bank stocks continue to command high premiums. The new American National which absorbed the old California Bank has already been bid up several points above par.

No business of importance was recorded in the miscellaneous list.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, January 28:

APOLLO. 1,000 at 2 29..... \$ 290 00

AZTEC. 220 at 90..... 208 00

CALIFORNIA STANDARD. 700 at 18..... 126 00  
3,500 at 17..... 595 00

FOUR. 200 at 61..... 122 00  
500 at 60..... 300 00

HANFORD. 27 at 112 00..... 3,024 00  
2 at 115 00..... 230 00  
5 at 128 00..... 640 00

HOME OIL. 100 at 3 25..... 325 00  
400 at 3 50..... 1,400 00  
25 at 3 10..... 77 50  
100 at 3 45..... 345 00  
300 at 3 40..... 1,020 00  
100 at 3 35..... 335 00  
300 at 3 30..... 990 00

INDEPENDENCE. 1,000 at 12..... 120 00  
2,000 at 13 (B 10)..... 260 00  
1,000 at 13 (S 90)..... 130 00  
15,350 at 13..... 1,995 50  
4,500 at 14..... 630 00  
1,000 at 14 (B 90)..... 140 00  
1,000 at 14 (B 5)..... 140 00  
3,000 at 15 (B 90)..... 450 00

JUNCTION. 100 at 16..... 16 00  
2,400 at 17..... 408 00  
1,200 at 12..... 144 00  
200 at 11..... 22 00

KERN. 100 at 5 00..... 500 00  
250 at 5 50..... 1,375 00

KERN RIVER OIL. 60 at 14 00..... 840 00

LION. 2,700 at 9..... 243 00  
1,000 at 09 (S 90)..... 90 00  
16,750 at 10..... 1,675 00  
1,000 at 11 (S 5)..... 110 00  
15,000 at 11..... 1,650 00

MONARCH. 4,000 at 28..... 1,120 00  
3,500 at 29..... 1,015 00  
500 at 27..... 135 00  
1,500 at 30..... 450 00  
100 at 35..... 35 00  
500 at 36..... 180 00  
200 at 37..... 74 00  
200 at 40..... 80 00

### MONTE CRISTO.

100 at 1 47½ (S 30)..... 147 50  
600 at 1 47½..... 885 00  
100 at 1 45..... 145 00  
850 at 1 50..... 1,275 00  
300 at 1 50 (B 30)..... 450 00  
300 at 1 55 (B 90)..... 465 00  
100 at 1 50 (C)..... 150 00

### OCCIDENTAL OIL.

1,450 at 20..... 290 00

### OIL CITY PETROLEUM.

1,500 at 22..... 330 00  
400 at 25..... 100 00

### PEERLESS.

90 at 14 50..... 1,305 00  
10 at 14 75..... 147 50

### REED CRUDE.

5,500 at 34..... 1,870 00  
2,000 at 32..... 640 00

### SAN JOAQUIN.

10 at 7 25..... 72 50  
300 at 7 50..... 2,250 00  
85 at 7 75..... 685 75

### SHAMROCK.

100 at 25..... 25 00

### SENATOR.

200 at 85..... 170 00

### SOVEREIGN.

100 at 47..... 47 00  
5,400 at 45..... 2,430 00  
1,800 at 41..... 738 00  
1,600 at 40..... 640 00  
200 at 39..... 78 00  
10 at 35..... 3 50  
500 at 43..... 215 00  
200 at 44..... 88 00

### STERLING.

1,350 at 2 85..... 3,847 50  
100 at 2 80 (C)..... 280 00  
100 at 2 80..... 280 00  
1,200 at 2 75..... 3,300 00  
1,600 at 2 70..... 4,320 00  
1,100 at 2 60 (S 90)..... 2,860 00  
400 at 2 75 (B 30)..... 1,100 00  
700 at 2 65..... 1,855 00  
100 at 2 70 (B 5)..... 270 00  
1,000 at 2 80 (B 90)..... 2,800 00  
200 at 2 75 (B 90)..... 550 00  
300 at 2 90..... 870 00  
1,050 at 2 95..... 3,097 50  
2,150 at 3 00..... 6,450 00  
300 at 3 00 (B 10)..... 900 00  
500 at 3 00 (B 5)..... 1,500 00  
100 at 3 45 (B 90)..... 325 00  
100 at 3 10 (B 30)..... 310 00  
500 at 3 15 (B 90)..... 1,575 00  
1,010 at 3 05..... 3,080 50  
300 at 3 10..... 930 00

### TWENTY-EIGHT.

315 at 2 00..... 630 00  
400 at 1 95..... 780 00  
100 at 2 00 (B 10)..... 200 00  
300 at 2 50 (B 90)..... 750 00  
150 at 2 60..... 2,990 00  
100 at 2 40..... 240 00  
100 at 2 55..... 255 00  
45 at 2 50..... 112 50

127,564 Shares Amount \$86,095.25

### HONOLULU SUGAR.

80 at 26 00..... 2,080 00

80 Shares Amount \$2,080.00

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Secretary

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Sterling Oil Stock, . . . @ \$1.70  
Lion Oil Stock, . . . @ 6-7c  
28 Oil Stock, . . . @ \$1.50

The record of sales during the past four weeks has proven the wisdom of our advice.

We now urge our clients to buy liberally of any of the above stocks. They are all **Steady Producers** and will pay dividends in the near future. We advise prompt action and guarantee the lowest market price on all orders.

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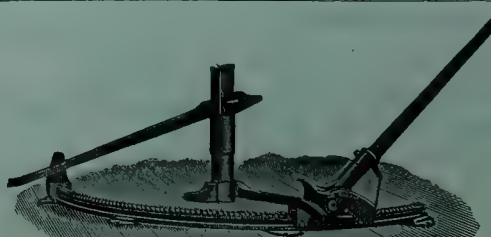
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" Visalia	4:48 p	.....	.....	5:30 a
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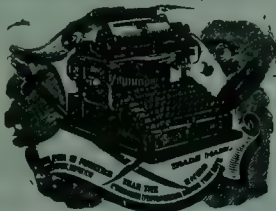
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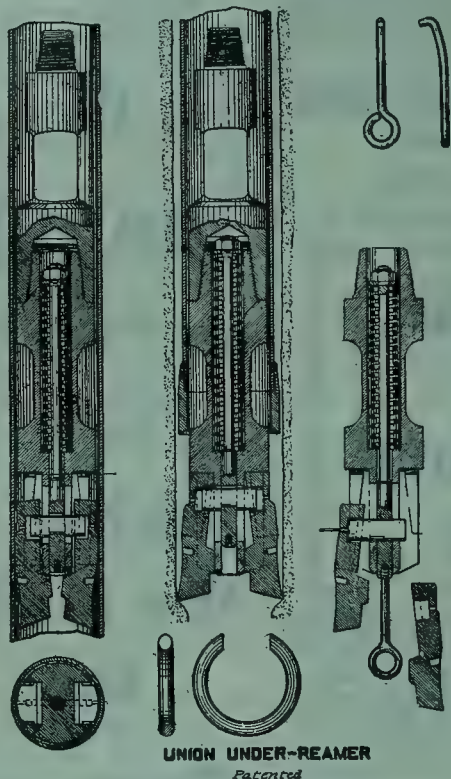
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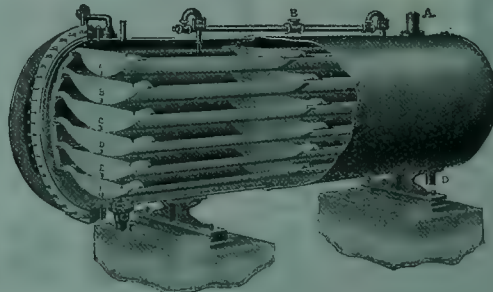
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Vol. 4. No. 13.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 31, 1903.

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We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

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# PACIFIC OIL REPORTER

VOL. 4. No. 13.

SAN FRANCISCO, CAL., SATURDAY, JANUARY 31, 1903.

PRICE, TEN CENTS.

## FLASH TEST OF FUEL OIL.

### An Attempt to Make the Legal Flash Test Unreasonably High.

### Attempts to Pass City Ordinance and State Law Which if Successful Will Greatly Injure Oil Producers and Seriously Effect Fuel Consumers.

A bitter attack has been made upon the oil industry of the State. Who was the main instigator is not known. It is not believed to have been the Associated Oil company, the Standard Oil company, the Santa Fe railroad or even the California Petroleum Miners' Association although each and all of these are openly charged as being the authors of the city ordinance and legislative bills which are directed against the oil industry.

If these attacks prove successful every oil district in the State where light oil is produced will be greatly injured, as the market for light oil would have practically been destroyed. These districts produce fully one-third of the entire oil production at the present time, and, as transportation facilities increase the output of light oil will be increased.

The attacks include also the product of the refineries, and if the bills are passed practically every refinery in the State will be closed down, as no gasoline or engine distillates could be used, and no kerosene could be profitably manufactured that could stand the proposed test.

The article which follows shows very clearly the nature of the ordinance and bills introduced before the Board of Supervisors of San Francisco and the Legislature of this State. It shows how unnecessary and unreasonable are the restrictions proposed against the oil industry, and how general is the opposition to the proposed measures from those most familiar with the oil industry, and who understand not only the requirements of the fuel-using public, but the welfare and safety of the people at large.

Already opposition to these measures has become so general and so pronounced that it is not believed that there is any danger of these unreasonable attacks upon the oil industry proving successful.

\* \* \* \* \*

Just as this paper goes to press it is learned that Dr. C. T. Deane, who asked Senator Ralston to introduce the Flash Test Bill in the Senate, has requested him to withdraw the bill on account of the many and just criticisms made against it. It is believed that the city ordinance now pending before the Board of Supervisors will also either be withdrawn or will be reasonably amended.

The very latest is that the fire committee of the Board of Supervisors have determined to have nothing to do with changing the proposed ordinance.

Shall the flash test for fuel oil and distillates be placed at 150°, or shall it be placed lower?

This is a question of vital importance to the oil industry of California.

Shall the law be invoked to impair the prosperity of an industry which, though still in its infancy, bids fair to become one of the greatest industries on the Pacific coast, increase in a manifold degree our manufacturing industries by furnishing a cheap and safe fuel which will enable us to compete successfully with the manufacturers of the East, and affording an opportunity for our independent oil refineries, now just beginning to be established, to furnish us cheaply the distilled products of crude petroleum, which until now have only been obtained from the East, and at such great expense as to render their general use, especially as

fuel for small power, impracticable?

In other words, shall our oil industry be fostered, or shall it be throttled just as it is coming into a condition where it is able to confer a great blessing and be of untold benefit to California?

Recently an agitation has been started which has for its object the passing of such city and State laws as will fix the flash test of fuel oil, distillates or any of the products of crude petroleum at 150° Fahrenheit.

The bill as originally introduced before the Board of Supervisors reads as follows:

#### PROPOSED CITY ORDINANCE.

Providing for the regulation of, and controlling the use of crude petroleum, distillate oil or any of the products of petroleum used for fuel purposes.

Be it ordained by the people of the City and County of San Francisco as follows:

Use of crude petroleum, distillate oil

or any of the products of petroleum for fuel purposes.

Section 1. No person or persons, firm, company or corporation shall within the limits of the City and County of San Francisco, construct, erect or maintain any plant, or use any device or apparatus for burning crude petroleum, distillate oil or any of the products of petroleum for fuel purposes, without permission of the Board of Supervisors of the City and County of San Francisco.

Fire Marshal to make conditions.

Sec. 2. When permission of the Board of Supervisors may have been granted, said plant, device or apparatus shall be constructed, erected and placed in position to the satisfaction and with the approval of the Fire Marshal of the City and County of San Francisco, and in such manner as said Fire Marshal shall deem safe to life and property; the Fire Marshal is hereby authorized, empowered and directed to prescribe the necessary conditions which shall govern the exercise of special privileges granted by the Board of Supervisors for the storage and use of crude petroleum, distillate oil or any of the products of petroleum used for fuel purposes.

Test of fuel oils.

Sec. 3. No crude petroleum, distillate oil or any of the products of petroleum shall be used for fuel purposes within the limits of the City and County of San Francisco unless the same shall stand a flash test of 150 degrees Fahrenheit or before it will flash or emit an inflammable vapor.

Fire Marshal shall test fuel oils.

Sec. 4. Any question arising under the provisions of this ordinance as to the character of the oils mentioned in this ordinance the same shall be tested by the Fire Marshal of the City and County of San Francisco, and he shall decide the test of such oils, and the decision of the Fire Marshal shall be final.

Permits issued may be revoked.

Sec. 5. When said Fire Marshal shall discover any person or persons, firm, company or corporation who may have received permission from the Board of Supervisors to use oil for fuel using any crude petroleum, distillate oil or any of the products of petroleum for fuel purposes which will flash or emit a flammable vapor below a hundred and fifty degrees Fahrenheit, which is required by this ordinance, said Fire Marshal shall immediately stop the use, and report the same to the Board of Supervisors in writing, and the permit which may have been issued by the said Board of Supervisors to use crude petroleum, distillate oil or any of the products of petroleum for fuel purposes, shall be revoked by said Board of Supervisors.

Penalty.

Sec. 6. Any person or persons, firm, company or corporation that violates, disobeys or refuses to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and, upon conviction, shall be punished by a fine not exceeding \$500, or by imprisonment in the County Jail for not more than six months, or by both such fine and imprisonment; and each such person or persons, firm, company or corporation shall be deemed guilty of a separate offense for every day such violation, disobedience or refusal shall continue, and shall be subject to the penalty imposed by this ordinance for each and every such separate offense.

Repealing all conflicting ordinances.

Sec. 7. Section 2, of ordinance No. 302, in so far as it may conflict with any

of the provisions of this ordinance, hereby repealed.

Sec. 8. This ordinance shall take effect and be in force from and after its passage.

As a result of discussion, and the hearing of many arguments, the committee of three before whom the bill was originally submitted cut down the proposed flash test from 150° to 140°, and it is in some such shape as this that it is expected to go before the legislature in the form of a "cinch" bill.

That such a law, either for the State or for the city, is unjust, uncalled for, and unreasonable there can be no doubt.

Assembly Bill No. 410, now before the legislature, which raises the legal flash test for fuel oil in this State to 150° Fahrenheit, is a measure having such a wide bearing on the welfare, not merely of the growing oil industry, but of the State at large, as to merit the most careful consideration by our legislators before action is taken. The public safety, the interest of our manufacturing industries in having cheap fuel, and the proper care of the business of oil production should all be considered and given weight in settling the question.

#### SAFETY FIRST CONSIDERATION.

All will probably agree that in any such question as this safety to life and property is the first consideration. Where fuel oil is used as it is to-day, in crowded office buildings, schools and hospitals, the danger of using an unsafe fuel is so magnified as to overshadow all financial consideration, not to speak of the property loss which might result from a single serious explosion. Producers of fuel oil will probably all agree that two or three disasters rising from the use of oil would injure the business more than it would gain in years from the sale of improper oil, and will be quite ready to welcome and support any measure looking to proper regulation of the quality of fuel oil to be sold. But if a measure be proposed which, by raising the legal standard higher than safety demands, bars out of the market any safe oil which might otherwise come into it, the measure becomes detrimental from the standpoint of consumer and producer alike.

The first question, therefore, will be as to whether the present flash test of 110° has given satisfaction in the past, and as to whether there is reason for thinking that it will in the future meet all requirements of safety. As to whether the test now in use has met past needs, we give in another column the opinions of users



and experts whose competence cannot be doubted. Here we look at the matter from the theoretical side alone.

#### OBJECT OF FLASH TEST.

The true object of the flash test is to find out whether an oil will give off explosive vapors at the temperature at which it is to be used. The temperature at which a fuel oil is used is the temperature in the tank in which it is stored, for experience has amply proven that where explosions have been caused by the use of oil, the trouble has been at the tank and not at the burner. Everyone knows that gas explodes only when mixed with the right amount of air; and, as air cannot penetrate into the service pipes, and would be immediately carried out by the flow of oil if it did, there can be no explosion in the pipes supplying the burners, and, if there should be any leakage from these pipes, it would, if set on fire, burn quietly without doing damage. It makes no difference how much the oil is heated between the pump and the burner, so long as the supply tank is kept cool.

#### THE SAFETY POINT.

That oil may be safely used very near its flashing point is proven by years of experience with kerosene. Ordinary illuminating oil, flashing at 110°, is used freely in Rochester lamps with metal bodies. In these lamps the oil is often heated to 100°, or only ten degrees below its flashing point, and the oil is within two or three inches of a strong flame. Yet accidents with lamps of this class are almost unheard of. This would go to show that oil flashing at 110° is safe at 100°, and also points to the fact that kerosene is very carefully tested and brought to the proper flash point before being put on the market. The regulation and testing of flash points is wise and necessary, but the standards should certainly be set no higher than needful.

If fuel oil is dangerous only in the store tank, and an oil of 110° flash would be safe at 100°, all our oils of 110° or higher are safe in use, as being entirely liquid, they do not need to be heated to be pumped. If stored in buried tanks (and all fuel tanks in cities should be underground) there is no reason why they should ever be heated above 80° while in storage.

On the other hand, the thick and gummy heavy oils must be heated to a certain extent before being pumped, and are usually heated to somewhere about 200°. An oil of 230° flash (a common point for heavy oil) is as near its flash point at 200° as is an oil of 110° flash at 80°. In other words, the light oil allows the same margin of safety under the conditions in which it is handled as does the heavy oil. All our oils flashing

### The Flash Test Bill.

Two bills, identically the same, are now before the legislature: one, assembly bill, No. 410, the other, senate bill, No. 225, introduced by Assemblyman Duryea and Senator Ralston. Both these gentlemen deny that they support the bill, and state they introduced it because they were requested to do so by Dr. C. T. Deane, secretary of the California Petroleum Miners' Association. They are astonished at the storm of opposition provoked against the bill by the oil men, and both declare they had no idea the passage of the bill would have such a far-reaching and disastrous effect upon the oil industry of California.

There will be a meeting on Monday at Sacramento, when the merits of the bill will be discussed before the committee on mines and mining, and where the injustice of the bill, as far as it relates to products of light oil, will be thoroughly shown forth and discussed.

The bill in full is as follows:

#### AN ACT

To add a new section to the penal code to be numbered —, relating to the regulation of the marketing, identifying, manufacturing and sale of products of crude petroleum used for illuminating and fuel purposes.

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1: A new section is hereby added to the Penal Code of the State of California, numbered —, as follows:

Section —. The products of crude oil or petroleum that are to be used for illuminating or fuel purposes may only be manufactured or offered for sale under the following regulations and restrictions, namely:

Benzol, gasoline, naptha and distillate, must be sold under their true names respectively, and such name must be impressed or otherwise plainly shown upon the barrel, can or vessel in which the same is sold, offered or exposed for sale respectively, or upon a label conspicuously and securely fastened thereto, and every barrel, can, or vessel of kerosene or coal oil that is manufactured, sold, or exposed for sale, shall be in like manner plainly marked or labelled with the word kerosene or coal oil, and with the degree of fire test of the same.

No kerosene or coal oil shall be manufactured, sold, offered, or exposed for sale, which will not stand a fire test of one hundred and twenty (120°) degrees Fahrenheit at barometric pressure of 29.92. The test by which the degree of fire test shall be made is the open Tagliabue electric cup, or one similar in construction and result. Said label, impress or other mark hereinbefore required to be placed on each barrel, can, or vessel, containing kerosene or coal oil, shall specify the altitude, or barometric pressure, of which guaranteed test has been made.

It shall be a violation of the provision of this section if any statement hereby required is false in regard to the articles manufactured, sold, or offered for sale, or, in the case of kerosene or coal oil, if the marked fire test on the package or label is higher in degrees than the said article will actually stand under the test hereinbefore specified; and the person, firm, or corporation violating any of these provisions, or any other provision of this act, is guilty of a misdemeanor.

Section —. All oil used in boilers as fuel, for the purpose of making steam shall be crude petroleum and shall stand a flash test of at least one hundred and fifty degrees (150°) Fahrenheit. This section applies only to cities and does not apply to boilers used at the wells for operating purposes or to railroad locomotives.

Section —. This act shall take effect six months from and after its passage.

from 110° to 150° can be handled easily without heating.

#### LIGHT OIL PRODUCTION.

The Coalinga field produced last year 500,000 barrels of oil, the Santa Maria field 100,000, the McKittrick field 600,000, the Whittier field 500,000, the Fullerton field 1,200,000; a total of almost 3,000,000 barrels of oil, the greater part of which flashes between 110° and 150°. This enormous amount, somewhat less than a quarter of the entire output of the State, is available for fuel at present, but would be barred out by the proposed bill. Would not this be a great misfortune to the State at large? The increase in oil production in this State last year over the year before was about 5,000,000 barrels, equivalent to at least 1,400,000 tons of coal. The falling off in coal imports was 400,000 tons at San Francisco, and probably much less than this amount for the rest of the State. If we deduct a maximum of 800,000 tons of coal from the 1,400,000 represented by the increase of oil production, we find that the State used an amount of oil equal to at least 600,000 tons of coal more this year than the year before. The wonderful expansion in our manufactures, which this increase indicates, and of which we all know, is due in very large measure to the supply of cheap fuel, available for the first time in our history.

#### HEAVY OIL PRODUCTION.

It is well known that almost all the oil produced in this State which will flash above 150° is the product of the Kern River field, and that the business of this field is almost entirely in the hands of two great corporations. On the other hand the great amount of oil flashing between 110° and 150° is produced by small and independent concerns. To bar these small companies from the fuel market would leave our industries at the mercy of these two great aggregations of capital. The welfare of the manufacturing industry, on which the prosperity of the State so largely depends, is bound up in the question of cheap fuel. So long as there are a large number of small producers the price can never rise much above what will allow a reasonable profit on the investment. But with the production of fuel oil centered in two hands the matter of price would rest entirely at the discretion of persons whose interests might not at all coincide with those of the consumer.

#### REFINING INTERESTS.

The refining interests of the State are rapidly growing, and in a few years will take all our supply of light oil. But at present the refineries are neither numerous enough nor skillful enough to handle this 110° oil, which is a middle class, heavier than the



lightest or refining oil. If the fuel market for this 110° oil were taken away it would stop the development, not alone of this oil, but also of the lighter refining oil, as the two are found together only too often. Every barrel of refining oil produced in this State goes into the market for refined oils, and keep here money which would otherwise go to the refiners of Ohio and Pennsylvania.

As a matter of fact if the bill or ordinance as drawn up is passed and becomes a law, it will practically put the refiners of gasoline and distillates used as fuel out of business.

The ordinance reads:

"No crude petroleum, distillate oil, or any of the products of petroleum, shall be used for fuel purposes within the limits of the city and county of San Francisco, unless the same shall stand a flash test of 150° Fahrenheit, or better, before it will flash or emit an inflammable odor."

This means that every man who uses gasoline in an engine, large or small, on land or on sea, within the limits of this law, shall stop using the same, and endeavor to find some other fuel to take its place.

What other fuel can take the place of gasoline or engine distillate.

NONE, ABSOLUTELY NONE.

There are probably in and about San Francisco at least two THOUSAND engines using gasoline or engine distillates as fuel. Everyone of these engines will be obliged to stop; will be thrown out of the shops, the manufactories, the launches, the steam schooners, etc.

Another thing. There are now thirty-two refineries in the State which have a total still capacity of 31,575 barrels of crude oil. These stills are refilled on the average every forty-eight hours, which means a total consumption of about 15,000 barrels of crude oil daily.

What is made in these refineries? CHIEFLY GASOLINE AND ENGINE DISTILLATES. If the use of gasoline and engine distillates is prohibited as would result if the proposed law went into effect, not only would all the refineries be put out of business, but the manufacturers and users of gasoline and engine distillates in their engines be compelled to replace these engines with others at great

expense and financial loss, and the makers of gas engines themselves would find their occupation and business gone.

Furthermore, the bill before the Legislature provides that all kerosene made and sold in this State shall stand a fire test of 120°.

No California kerosene will stand such a test. It cannot be profitably made to stand such a test, and if this law goes into effect it throws the entire kerosene trade into the hands of the Eastern refineries, and California refiners may just as well go out of business now as later.

WILL NOT AFFECT THE RAILROADS

The Southern Pacific is now using oil as fuel on over 500 engines, and is increasing the number of oil-burning engines as rapidly as oil-burning appliances can be installed to take the place of coal. At the present time the Southern Pacific is using at the rate of over 3,500,000 barrels of oil yearly. By the close of 1903 it will be using at the rate of over 4,000,000 barrels a year, and the Santa Fe will be using at the rate of over 2,000,000 barrels per year. Together they will require over 6,000,000 barrels yearly by the close of 1903. By the close of 1904 the railroads in the State will require at least 8,000,000 barrels of oil.

The bulk of the oil now used by the railways is a heavy Kern oil which flashes at 240°. It has to be heated nearly if not quite 100° Fahrenheit before it can be handled by the railroads. The Kern River oil is now used by the railroads more than any other oil for two reasons: First, because it is cheaper than other oil; second, because the field is centrally located, and from it the oil can be shipped north or south as desired.

Beside the Kern River oil, the Southern Pacific uses some heavy Los Angeles and Summerland oil which flashes at about the same temperature as the Kern.

If the railroads should desire to burn Coalinga oil (Ora Crude, as it is called), which is a perfectly safe oil and flashes at 140°, the proposed law would prohibit its use. The railroads could not use Ventura or Fullerton oil. Even McKittrick oil of 18½ gravity would be barred out, as this has a flash test of 110° and a fire test of 130°. The oil from the

Santa Barbara field known as the Western Union oil would be at once pronounced unfit, and no matter what trouble or expense might be entailed the railroads would be obliged to obtain all their liquid fuel, or the greater bulk of it, from Kern county, although other and even superior oil could be obtained nearer at hand, and at the same or less price.

As a consequence of the effect a flash test of 150° would have on the railroad companies, an exception has been made in their case, and the bill provides they can use an oil of any flash desired, high or low, 150° or 110°, or even lower.

If this is not an illustration of partial legislation no better can be offered.

Why should the railroads be allowed to use oil lighter than 150°

and the manufacturers and other consumers not?

Why should they be allowed to patronize the producers of different fields, and consumers generally be forced to obtain their crude oil only from those fields that produce heavy oil?

If a flash test of 150° would work a hardship on the railroads, why would it not work a hardship on the average consumer?

Why should the framers of this bill thus favor the great railroad corporations, and formulate a scheme to enrich the consumers all over the State?

Would it not indicate that the backers of this bill, whoever they may be—the Standard Oil company, or anyone else—took into consideration the fact that if the attempt was made to fix a minimum flash test of 150°, the rail-

(Continued on page 7.)

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

## TERMS

ONE YEAR .....\$2 50  
SIX MONTHS.....1 50  
THREE MONTHS.....1 00  
SINGLE COPIES.....10c

STRICTLY IN ADVANCE

MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine Street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY, JANUARY 31, 1903

The State has really no right to establish by law what shall be the kind of oil used. In Kern county when the oil is a heavy oil it would be all right to have a State law that none but heavy oil should be used anywhere; but this same law would work a great hardship in Ventura where only light oil is produced. On the other hand if the State law made the use of light oil compulsory the Bakersfield oil producers would howl in their turn.

In Los Angeles county both light and heavy oil is produced, and both kinds have to be used to supply the demand, hence any law would prove burdensome which favored either kind of oil.

As a matter of fact the oil business had better be let entirely alone, and if any regulation is attempted let it be confined simply to the question of storage—how shall oil tanks be constructed, of what material, how put together and how ventilated?

The regulation of the oil tanks is of more importance than the regulation of the oil.

There is no question but that Senator Ralston speaks the truth when he says he had no idea of the storm of opposition that would be aroused by his introduction of the flash test bill.

He was asked to introduce the bill by Dr. Deane, and believing that Dr. Deane represented the California Petroleum Miners' Association, which had framed the bill after due deliberation and consultation with representative oil men and refiners, Mr. Ralston had no hesitation in consenting to in-

troduce the bill and act as its sponsor.

As a matter of fact no one but Dr. Deane is responsible for the bill. The California Petroleum Miners' Association was not responsible for it, the Standard Oil company knew nothing of it, neither did the Associated Oil company. The railroads had no hand in its presentation.

Dr. Deane, who is greatly interested in oil matters, thought the bill would have a most beneficial effect upon the oil industry at large, and is more than surprised at the howl that has gone up against the proposed measure all over the State. The doctor had no idea his little bill had so much in it, and is greatly surprised, if not shocked, at the rumpus he has stirred up.

He will undoubtedly authorize Senator Ralston to withdraw the bill, and thus free himself of the disagreeable duty of going to Sacramento to face a crowd of indignant oil producers and refiners whose emphatic opposition is something not to be envied or desired.

The entire affair is greatly to be deplored as the bill has brought condemnation upon those not to blame for its introduction, especially the California Petroleum Miners' association, which really is not to blame for the bill, its directors knew nothing of it and many of them as well as the supporters of the Association are emphatically opposed to it as being inimical to the oil industry.

The arguments of the opposers of the bill are so many and so strong there is no doubt but that the bill will never get any farther in the legislature than its introduction. The ordinance now before the board of supervisors will meet the same fate as the legislative bill.

## OIL GAS EXPLOSIONS.

Why They Occur and How They Can Be Prevented.

A. S. COOPER, M. E.

All hydro-carbons, both liquid and solid, are volatile. They give off gases that, when mixed with certain proportions of air and are ignited with a flame, explode.

Coal and vegetable matter undergoing decomposition produce marsh gas ( $\text{CH}_4$ ). It escapes into the workings of coal mines through small fissures and occlusions in pores and cavities which abound in the coal seams and strata adjoining them. It must be carried away in a much diluted state by ventilating currents or it will mix with air in cavities in the roof of the mine and in unventilated spaces, forming inflammable accumulations.

In order to keep an explosive gas from accumulating in cargoes or stacks of coal they are ventilated.

California crude petroleum, when exposed to the air, slowly evapor-

ates, becoming less and less volatile, first forming viscous matter, then hard asphaltum, and finally brown, friable asphaltum. During these changes it gives off gases that, when mixed with the atmosphere in the right proportions, are explosive.

If any crude petroleum oil is stored in a closed tank, in which a space exists above the oil filled with atmospheric air, the oil will quickly or slowly, according to the volatility of the oil, give off gases that in combination with the air will explode if ignited.

In experiments recorded by Braunt, "Petroleum and its Products", with oil gas as made for town lighting in many parts of the United States, of a specific gravity about 0.68, mixtures of oil gas with air had the following explosive properties:

Oil gas, volumes.	Air, volumes.	Explosive effect
I	4.9	none
I	5.6 to 5.8	slight
I	6. to 6.5	heavy
I	7. to 9	very heavy
I	10. to 13.	heavy
I	14. to 16.	slight
I	17. to 17.7	very slight
I	18. and more	none

From the above it will be seen that explosive gases if mixed with an excess of air are not explosive.

Therefore for safety in transportation, storage or use of petroleum two ways can be employed.

1. To hermetically seal the oil so that no atmosphere comes in contact with the oil. This is expensive and is only employed where the oil or product is very volatile.

2. The gases should be carried away by a large excess of air as rapidly as generated.

The more volatile the oil the faster these explosive gases are generated and the more difficulty in removing them. Also there will be considerable loss, caused by their removal.

## Mixed Oils.

The public, generally, has an idea that crude petroleum used as fuel is, as a rule, the product of one well and is not the mixed product of several wells, yet the latter is almost always the case.

Kern River oil, as it is generally received here from the tanks of the Standard Oil Company, is the product of hundreds of wells located in the different portions of the Kern River fields. This oil flows from different wells through small lateral pipes which connect with the main pipe flowing through the Kern River fields from the extreme end of the field to the tanks of the Standard Oil Company. There are several of these main pipe lines and dozens of smaller lateral lines. The oil from these hundreds of wells flows from the different pipe lines and finally is emptied into the great tanks near the railroad. Now some of this oil may be of 14°, some 15°, some 16° and some lower or higher than this. These different

oils, having a different gravity at the wells, where also they have a different flash test, are emptied together into a big tank where they are mixed, the result being a gravity which is the mean gravity of all the oils in the tank.

When an oil dealer has two kinds of oil, one we will say of 16° and another of 28° or 30°, it is possible for him to mingle these two kinds of oils in such a way that the product will be an oil of any degree he wishes to supply his customers, say from 18° to 22°.

It must be remembered, however, that when two oils are thus combined, a heavy oil with a light oil, the result being an oil of a different gravity from that of either of the two original oils, that the flash test of the combination oil will be that of the lighter of the two oils of which it was composed.

Thus a 20° oil has been obtained by the mixing of 15° with a 28° oil. The 20° oil thus obtained will have the flash test of the 28° oil.

Some people think that the gravity of oil indicates its flash test. This is not so. The gravity of an oil does not indicate the flash test. Two oils of 16° may have a widely different flash test, one oil being a pure oil just as it came from the well, the other being a mixture of two crude oils, one a heavy and the other a much lighter oil. The mixed oil will have a much lower flash test than the fuel oil and will give off a much greater amount of volatile gases than the pure oil and requires greater care in handling and storing.

## The S. P. In Louisiana.

The Southern Pacific Railway company has let a contract for the sinking of three wells in Louisiana—one at St. Martinsville, which is an entirely new field; another at Welsh, and a third at Anse la Butte, near Breaux Bridge. The main object is to develop sufficient oil for fuel on the road and steamers, which will require about 3,500,000 barrels a year.

## New Oil Field.

Oil has been discovered oozing from the banks of the Racoon river near Grantiety, in Sac county, Iowa. A quart of oil sent to Ames college for analization is said to have been found to be 80 percent pure. The discoverer, a woman, has quietly leased 6,400 acres in the locality.

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## FLASH TEST OF FUEL OIL.

(Continued from page 5.)

roads would immediately recognize its possible effect upon them, and would cause such opposition as to make its passage an impossibility. So the Standard, or some one else, quietly excepted the railroads from the 150° test, and thought the rest of the consumers and producers would not recognize the real import of the bill, and would let it slip through.

The simple fact that the railroads are excepted alone from all the consumers who will be compelled to use 150° flash oil, should kill the bill before it comes to passage.

Let us conserve the public safety, by all means, and first of all. But having decided where the point of safety lies, let us not be too rash about barring from the market a quarter of our production. A long freedom from accidents, as well as a theoretical consideration of the case, point us to the belief that all the needs of safety are met under existing conditions.

A piece of advice, true if time-worn—"Let well enough alone."

It has been said that because Dr. C. T. Deane, secretary of the California Petroleum Miners' association was in favor of an ordinance placing the flash test of fuel oil and distillates at 150°, all the members and supporters of this association were in favor of this law, and that Dr. Deane was not acting so much in his capacity of an individual as in his capacity as secretary of the association which was practically behind him in this matter.

As a matter of fact the actual membership of the California Petroleum Miners' association is confined to a very few oil companies as follows:

Occidental, Colorado and California Fuel Oil Co., Clearlight, Four, Apollo, Yosemite, Belgium, Obispo, Union Consolidated, Elk Horn, Peerless, Alameda and Standard Rock Oil. Of these the only companies producing and shipping oil are the Peerless, Four, Apollo and Alameda.

The officers and directors of the association are the following:

Officers: Hon. M. H. de Young, president; Arthur R. Briggs, first vice-president; G. X. Wendling, second vice-president; Henry J. Crocker, third vice-president; E. P. Heald, treasurer; Dr. C. T. Deane, secretary.

Directors: Wesley A. Jacobs, E. A. Denicke, Jos. A. Chanslor, Ed. Aigeltinger, George H. Ismon.

The regular contributors to the support of the association are the following:

Ellery & Blood, Dunham, Carrigan Co., Alexander-Yost & Co., Henshaw, Bulkley & Co., American Tool Works, Vulcan Smelting & Refining Co., Compressed Air

Machinery Co., Esign & McGuffie, Gorham Rubber Co., Bishop Fishing Tool Co., Britton & Rey, Selby Smelting & Lead Co., Jno. Taylor & Co., Baker & Hamilton, Jno. A. Roebblings Sons Co., Tubbs Cordage Co., Thos. Magee & Sons, Whittier-Coburn, Bank of California, Payot, Upham Co., Paraffine Paint Co., Blake, Moffitt & Towne, Justinian Caire Co., Byron Jackson Machine Works, R. H. Herron Co., Harron, Rickard & McCone, Pacific Hardware & Steel Co., W. W. Montague & Co., National Tube Co., Goodyear Rubber Co., Northern Commercial Co., American Steel & Wire Co., Percy W. Rochester, Globe Navigation Co., W. P. Fuller Co.

In view of the fact that the ordinance as framed by Dr. Deane and Fire Marshal Towe provides for a flash test of 150° the PACIFIC OIL REPORTER has interviewed a number of the directors of and contributors to the support of the California Petroleum Miners' Association, asking them to express an opinion with reference to the proposed raising of the flash test of fuel oil and distillates to 150°. The result of these interviews as published below shows that the association itself had nothing to do with recommending the raising of the flash test to 150°, and also shows that the directors of the association who were interviewed do not favor the establishment of such a high test.

PROF. E. P. HEALD.

"In regard to the present agitation which demands an increase in the flash test of fuel oil and distillates from 110° to 150°, it seems that any oil, even that of a low gravity, contains more or less of vapor which naturally rises to the top of any tank where it is stored. If this tank is improperly constructed, especially as regards ventilation, this vapor will collect. Then if a lighted match or any flame is applied to it the vapor will explode. This will occur with any oil whether it has a high or low flash test. If any explosion occurs it is due more to carelessness than anything else.

"Much of the oil produced and used in this State will not stand a flash test of 140°. Probably none of the benzines and gasolines will stand such a test.

"If the use of all oils, benzines, gasolines and distillates is prohibited which will not stand a test of 140° a great injury will be done to the production of oil, the refiners will have their market for oil very greatly reduced if not practically destroyed, so far as this State is concerned, and the consumers will be put to great inconvenience and financial loss in not being able to longer use the cheap fuel supplied by oil and its products.

"To my mind an increase in the flash test of fuel oil and distillates to so high a flash test as 150° is

unnecessary, and such an increase will work an unnecessary hardship on the oil producers, refiners and consumers."

JOSEPH A. CHANSLOR.

Mr. Chanslor is one of the directors of the California Petroleum Miners' Association and is also a director in the Associated Oil company.

In a recent interview he expressed himself as being utterly opposed to fixing by law a high flash test for fuel oil, such as would shut out the light oil of the State. He said:

"If the Ralston bill were passed about 85 percent of the oil produced in California would be barred from the market until it had been refined.

"We contend," continued he, "that they are in error in offering such a bill. It certainly does not meet with the approval of the oil people of the State. Not only is it not to their best interests, but it is also against an industry that has done more to build up California than any other half-dozen industries. A bill of that kind would not only cripple the industry, but it would work great hardship on the producers, and in many instances utterly ruin them. We do not know the cause as to why anyone should introduce a bill requiring such extremely high tests, as they are not in use in any State or country that has been brought to our knowledge in which oil is used as extensively as in California.

THERE IS NO DANGER.

"We do not object to their introducing a bill providing a high fire test for all oil used for illuminating purposes, such as coal oil and gasoline for they are used in families by children who do not understand their use; but crude oil, such as is used only for fuel purposes, is only fed to the furnaces by experienced firemen, and therefore there could not be danger when it is handled by experienced people.

"The first oils used extensively in California for fuel were high gravity oils, and with a possible one or two exceptions there has never been a serious accident, except one or two caused by oils imported. Then the cause was gross carelessness, as has been proved to the satisfaction of government and other experts. Crude oils, such are produced in the State of

California, practically are as safe as coal and could be used almost as safely in an ordinary household. We do not understand who could have fathered so hideous a bill to present to our people, as it certainly is not in the interest of that industry which means everything to California.

WOULD INCREASE COST.

"California is peculiarly situated. We have been subjected to peculiar conditions that have caused us to pay high prices for fuel, and now we have in its crude state that which has caused the cost of manufacturing to decrease 50 percent, and our freight rates have been reduced in comparison to the savings that have been affected by railroads adopting oil as fuel. But if the producer is compelled to offer for market only oils that will carry the fire test in the proposed bill, it will benefit only some monopoly in the shape of a large refinery that can take advantage of this measure and run oils through the refinery in order to take off gases and place upon the market the residue, which in no way will be equal to the crude oil in value.

"The increased cost to the consumer will depend largely upon the increased tariff that the large oil refiners will see fit to ask, because refining plants capable of handling and preparing for market fuel oils that will meet the requirements of the proposed legislation could only be produced at great expense. California to-day is using about 40,000 barrels of oils daily. A refinery of sufficient capacity to handle all these oils, taking from them all their lighter qualities, would cost several million dollars, necessarily increasing the cost to the consumer.

TWO ATROCIOUS BILLS.

"About eighty-five percent of the oil of the State would be barred out until it had been refined. A flash test of about 100° would admit eighty-five percent of the oil produced in the State to the market, without its first having to pass through the refinery. It is my opinion, after several years of active experience in oil production, and having tested and experimented with California crude oil in every way, having a flash test of 100° would cause fewer fatalities in the years to come than would illuminating oils, such as are used in the family trade

## Mt. Hamilton Land and Oil Co.

Owens oil territory in the Coalinga and Kreyenhagen Oil Districts. Is now down over 400 feet on its first well at Alcolide, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 560 acres.

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In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

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every year. In other words, a careful and experienced fireman in using crude oils under boilers or furnaces of any kind, would find it practically impossible to cause an accident.

"As an officer of the Associated Oil company, and its president also, I am sorry that the daily papers have in any way connected the Petroleum Miners' Association of San Francisco with the Associated Oil company. While it is true that the names of myself and one other director of the Associated Oil company appear as directors of the Petroleum Miners' Association, we have never acted in any such capacity, are in no way responsible, and have no knowledge of what it has done or intends to do. We have never attended one of its meetings or met any of its directors, except Dr. Dean, who, I believe, is the secretary; and, if Dr. Dean is in any way connected with the question in issue, as representing the Petroleum Miners' Association, on behalf of the producers of the State, he is far from representing them or their interests, and we are sorry that Dr. Dean has taken a wrong track.

"That later bill, introduced last week, to have all oils inspected, is one of the most atrocious things ever offered, and, if passed, would do more to cripple the oil industry than anything else that could possibly happen. The two bills combined would certainly put the oil

producers and operators out of business."

HENRY J. CROCKER.

"I am in favor of attempting to pass a bill establishing a flash test of 150°. I believe something ought to be done to regulate the kinds of oil and distillates used as fuel, and the only way to accomplish this is to strongly agitate the matter. I do not for a moment believe that a bill providing for a flash test of 150° will pass. Oil men think it is too high. Very well. The result of all this agitation will be that some flash test will be adopted which will be right and satisfactory to producers, refiners and consumers. This result could never have been obtained without the present agitation which by providing for a flash test of 150° has made a big stir, and will cause definite and satisfactory results."

It is evident from the above that Dr. Deane, in his attempt to establish a flash test of 150° is not upheld by the directors of the association of which he is secretary.

Below is given the opinions of those who are supporters of the Petroleum Miners' Association, and who, many of them, are extensive users of fuel oil.

R. H. HERRON & CO.

W. W. Nellis, manager for R. H. Herron, said:

"I regard a flash test of 150° upon the face of it as too high,

and in fact prohibitive, though I have not looked into the new ordinance thoroughly."

HARRON, RICKARD & McCONE.

Mr. T. Rickard of Harron, Rickard & McCone expressed a brief opinion:

"It seems to me that a flash test of 150° would be prohibitive. While I have not given the matter much consideration, I believe that an ordinance requiring a flash test of from 110° to 120° would be entirely adequate."

BISHOP FISHING TOOL CO.

Mr. Kaye of the Bishop Fishing Tool company was of the opinion that; "Such an ordinance and high test as 150° flash represents an attempt to shut out most of the oil business from San Francisco county. All the oil in use here, if properly handled and given proper vent, should not require a flash test higher than 110° or 120°. If such a prohibitory ordinance were passed it would put many of the people out of business."

PERCY W. ROCHESTER.

Percy W. Rochester said: "I regard the proposed 150° flash test as entirely beyond the practical point, and the ordinance is designed to put an embargo on the use of oil in San Francisco. I think it was framed through ignorance and prejudice and in the interests of a few. I think that test would be higher than is

known or used elsewhere, and I believe that with proper care a flash test of from 110° to 120° would be sufficient for all oils and distillates in use here. I am surprised to see the California Petroleum Miners' Association lending itself to such a measure's support."

JUSTINIAN CAIRE

Justinian Caire said in regard to the proposed ordinance: "I regard a 150° flash test or 140° as entirely too high, in fact even prohibitory. If such a measure were passed it would work great hardship to the California oil industry. I sell a great many flash test apparatus, and I find the general opinion of oil men and chemists to be that a flash test of 110° is safe and all right. That is my opinion also, or at the most of 120°. I regard care in storage and usage of any oil as the most essential thing to prevent accidents."

CRANE COMPANY.

Mr. H. T. Lally of the Crane company said: "I regard such a test as 150° as entirely too high. In such an ordinance, I think, the various oils in use should be specified and the test made to suit each one."

AMERICAN TOOL WORKS.

Joseph Eastwood of the American Tool Works expressed the opinion that: "In the first place I think the proposed ordinance is unjust, for it discriminates in favor

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of one oil and one field. The fire ordinances are tight enough now, and that rate of test is way too high."

ALEXANDER, YOST & CO.

Mr. Jones, manager for Alexander, Yost & Co., said: "I am sure that an ordinance proposing such a high test as 150° flash will never be passed. All those interested will fight desperately against it, for it certainly means disaster to oil men in San Francisco, gasoline engine men and people who buy oil for other purposes."

DUNHAM, CARRIGAN & HAYDEN.

Mr. Morton of Dunham, Carrigan & Haydensaid: "Well, I hope that ordinance will be knocked out. There have been very few accidents with the 110° test we now have, and most of those from carelessness. The present test is all right. To make it 150° means loss of business to San Francisco."

W. P. FULLER & CO

I. F. Littlefield, secretary for W. P. Fuller & Co., gave this opinion: "I think a flash test of 110° is a fair test and a safe one with ordinary care and precaution, for the oil in use here. The proposed test of 150° flash will be exorbitantly and unnecessary high. Such an ordinance would mean disaster to the oil interests of San Francisco. In my opinion more accidents result from carelessness than from low tests."

From the foregoing interviews it is easily understood that the main contributors to the California Petroleum Miners' Association are practically unanimous in the expression of their belief that the proposed raising of the flash test of crude oil and gasoline to 150° or even 140° is unnecessary, uncalled for, and if secured by law would work a great hardship on the oil industry and on fuel consumers generally.

Others who are familiar with the use of oil, who handle it daily in their stores, factories or engines, who are acquainted with the oils of every oil district in the State, are a unit in the expression of their opinion that the proposed flash test of 150° or even 140° is entirely too high.

HERCULES GAS ENGINE CO.

Mr. Willard of the Hercules Gas Engine company said: "I think the instigator of that ordinance has fanatical views which he is trying to foist upon the community. Such an ordinance would be detrimental to the city, the manufacturers and the small users of power, whose privileges are limited enough now. Why, illuminating gas is dangerous if not properly used, yet we do not banish it from our houses. I do not consider even Coal gas oil more dangerous than gas with proper precautions. The flash test put at 150° is absurdly high."

CHAS. C. MOORE & CO.

Chas. C. Moore gave his views on the ordinance as follows:

"Well, I should be more than sorry to see such an ordinance passed. In my opinion the present test of 110° is all right, but it might be more specifically regulated to apply to various grades of oil. I think frequent inspections anyway of various plants as to the care and precautions taken in the use of oil would be of more use than a stricter test. I certainly hope the flash test will not be made above 120°. If this ordinance should pass I think it will simply be an unobeyed ordinance, which is worse than none at all."

INDEPENDENT ELECTRIC CO.

Mr. A. M. Hunt of the Independent Electric company said:

"I think the present flash test of 110° is all that is requisite, especially for shore plants, where the conditions for the storage and ventilation of oil are very different from those at sea. You will not find a city or country that has a flash test of over 110°, and I think Russia has 100°. New York and Chicago have no fixed ruling as test. I cannot see why those at all interested in oil should wish to cut from the market at least one-third of the State product which this ordinance proposes to do. Read literally it would even do away with gas, which almost all has a proportion of the product of petroleum in it. I cannot see how the California Oil Miners' Association can father this measure as they seem to be doing, and Dr. Deanne is certainly acting in a manner incompatible with the best interests of San Francisco and the State."

UNION GAS ENGINE CO.

W. J. Casey of the Union Gas Engine company said:

"When Great Britain has for years kept the flash test at 120° for even illuminating oil, I see no reason why we should make ours 150° and fall into the lap of the Standard Oil company, for that's about what it amounts to. In my opinion the present 110° test is safe enough, and I think the proposed ordinance is broad enough to kill itself. There is no fire test anyway for gasoline and distillate."

KING KEYSTONE OIL CO.

Fred L. King, president of the King Keystone Oil company says: "There is no sense nor reason in the proposed flash test of 150°. New York under different conditions has a test of only 100°."

"The next move of these people will be to raise the flash test of illuminating oils. This will make it harder for the small refiner and throw things more into the hands of larger corporations such as the Standard Oil company. The present test is all right, especially for shore purposes."

COMPRESSED AIR MACHINERY CO.

Mr. Hewitt of this company said: "I believe that more care and less legislation should be used in oil matters. This ordinance would work havoc with all San Francisco dealers. I for one will do all I can against it."

ENSGIN AND MCGUFFICK.

Mr. McGuffick said: "I believe that the coal men are at the bottom of this scheme. Crude oil is in use everywhere in San Francisco now, yet I have never heard of a fire resulting from it in a plant. If this thing passes it will run oil not only out of the San Francisco market, but of other markets. The present test is all right, if they will just let it alone."

PAYOT, UPHAM & CO.

Henry Payot of Payot, Upham & Co. is of the opinion that "the passing of such an ordinance would be a much more serious thing than would appear casually upon the face of it. It would be most detrimental to the oil interests, not only of San Francisco, but of the State. I am opposed to raising the present flash test of 110°."

BYRON JACKSON MACHINE CO.

William E. Boyer, manager for the Byron Jackson Machine company, said: "We are decidedly against such ordinance, as every dealer in oil and engines should be. The present test of 110° should be sufficient with proper care and precautions."

OCEANIC STEAMSHIP CO.

F. S. Samuels, with the John D. Sprekels company, said: "While the proposed flash test of 150° may be all right for our use for steamers it may be all wrong for other interests. It is unnecessarily high even for our use. A flash test of 130° or even 120° would be all right."

EQUITABLE GAS CO.

S. H. Tracy, secretary of the Equit-

able Gas company, said: "We are very much opposed to the proposed ordinance, and I have not met any thinking person who is in favor of it, from the fact that it is not necessary, and represents a menace to the oil interests of San Francisco."

"New York and Chicago have no fixed ruling as to flash tests, and I think we should be satisfied with a reasonable one, which a flash test of 150° would not be. I cannot understand why a few men should get together and seek to so discriminate against a product of their own State. This ordinance would mean great loss to the many who use the various crude oils largely in the conduct of their business, and especially so if applied to illuminating oils."

SAN FRANCISCO GAS AND ELECTRIC CO.

S. L. Naphthaly, superintendent for the San Francisco Gas and Electric company, said: "If a flash test of 150° were applied to gas and illuminating oils it would mean that we would have to go out of business. All the gas companies would fight to a finish against such a measure."

ILLINOIS PACIFIC GLASS CO.

E. Abrahamson of this company said: "I regard the proposed ordinance as a deliberate attempt to hamper the oil trade of San Francisco. I consider the present flash test of 110° as a safe one for users of oil."

PACIFIC GAS IMPROVEMENT CO.

C. O. G. Miller, president of the Pacific Gas Improvement company, said: "I am against anything which restricts trade, which the proposed ordinance would do in a very decided way. I have not found anyone who is in favor of it."

AT LOS ANGELES.

Everyone in Los Angeles who understands how the proposed legislation will effect the production and consumption of light oil is most emphatically opposed to the bills now before the legislature.

Of those who have used the light oil in Los Angeles the following are outspoken in its favor:

A. C. BILICKE.

A. C. Bilicke, of the Hollenbeck, was the first one in the business district of Los Angeles to prove his faith in the light fuel oil by using it, and has used it for several years, so is especially qualified to speak on the subject. The Hollenbeck uses twenty-five barrels of oil a day, and regarding it Mr. Bilicke says:

"I consider the light fuel oil gas safer than coal and much superior to distillate. Coal ashes and is more or less dangerous in firing boilers with it. The oil is no trouble and is absolutely safe. Insurance companies give us freedom to use the light oil for fuel, only stipulating that we must comply with their requirements regarding storage. We use the very light oil in all our boilers and have never had the slightest accident from it. The plea that the test should be increased on account of danger from the light oil is nonsensical. If they abandon the use of the light oil we will have to burn distillate and it would make so much soot that Los Angeles would be a decidedly smoky city. It is also dangerous because volatile. The

chimneys become lined with the light, flaky soot, which catches fire as rapidly as does tinder. The higher test is absolutely unnecessary, as there has never been an accident in Southern California with the light oil that was not due entirely to carelessness."

CONSUMERS AGREE.

Another advocate of the light oil is W. E. Keller, of the McDonald Milling company, who says:

"We have used light oil for ten years and it has been satisfactory in every way. We have never had any explosion from it. It would be a great detriment to Southern California if that bill passed, because few of our oils here would stand the test."

Opinions of other large consumers follow:

E. T. Gay, Los Angeles Farming and Milling company: "We are using local oil and have been ever since the field was opened. There is no danger of accident when it is properly handled."

W. H. Jochman, California Portland Cement company: "For fourteen years we have been using this light oil and we have yet to discover that it is either unsafe or any trouble."

Representative Los Angeles Pressed Brick company: "We use 1,000 barrels a month and have used the light oil for a long time. We have never had any accidents and find it entirely satisfactory."

Said another prominent Los Angeles oil man: "As oil producers, we do not seek to prevent legislation that will prove of benefit to the industry, or that would aid the ignorant in improving condition. But we do protest against any action that would benefit one oil district and at the same time cause commercial paralysis in others. The placing of the flash light test at 150° Fahrenheit means that only the heavy grade oils can be marketed without refining, which would quickly narrow the field of production and increase the price to the consumer. When this is made plain the whole matter is cleared up, and the oil men know that one associated oil company is taking an active interest in the matter."

CONSUMERS INJURED.

"As to the effect upon the oil industry," continued the speaker, "I can only say that not only would the producer be injured, but the

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consumer would likewise suffer. If our crude oils will not flash at the point established the user would be compelled to pay a pretty penny—not to say tribute—to the northern concern for his fuel oil, or he would be compelled to return to coal at a higher price per ton. In fact this whole agitation comes from a single accident and the first ever known of its kind. That accident arose from ignorance or carelessness in mixing oils that should not have been combined. A fair bill that will establish the uses of oil and that will demand a proper knowledge of oils on the part of those who sell them for steamer or tankage purposes will suit every one, but we shall oppose any attempt that will injure the oil industry of the State by imposing a flash test that is uncalled for and that would prove an absurdity in its sweeping provisions."

J. B. MILLER.

President John B. Miller of the Edison Electric company is among those who are opposed to increasing the fire test. The Edison company uses several thousand barrels of light oil a month, and hence, Mr. Miller speaks from experience when, in discussing the subject, he says:

"For many years we have used the so-called light fuel oil. It has always been of greater advantage than the heavy, although we have used them also. It has been of advantage in economy of operation and results obtained. In all the time we have used high-grade oils we have never had a single untoward incident, let alone accident. Our engineers consider the use of light oil as safer than the especially heavy oils, because as a rule the lighter grade can be handled without any manipulation, either from the tank by gravity or pressure, whereas with especially low grade oils we very often have to put them through such process as heating, in order to force them through the pipes, and this is attended with some danger.

"In my judgment, the passage of such a bill would not only work a great hardship to every user, in that they would be limited to the low grades produced in a small proportion of California oil territory, but it would also very seriously retard the manufacturing and commercial development of the whole state, as well as enormously increase the expense to consumers.

WHAT CHEMIST SAYS.

T. H. Moore, chemist of the Los Angeles Soap company, is of the opinion that there is no more danger in using light than heavy oil.

"We are now using fourteen gravity crude oil," said Mr. Moore, "but we have used both light and heavy, both from the east and west end fields, and we have not

found any more danger in the light quality than in the heavy. In fact, not so much in the former. Our only objection to the light quality is that it is more sluggish and carries more water. We have never had any trouble on account of its being inflammable and have not found it dangerous."

"Carelessness in handling and not difference in the quality of the oil is what causes accidents," said J. O. Cashin of the National Ice company, when asked his opinion on the subject. He continued: "The lighter quality has so much other stuff mixed with it that it does not burn as readily, and hence it is not so dangerous."

NEVER HAD TROUBLE.

The Maier & Zobelein brewery uses 1,500 barrels of oil a month from its own wells, and George Zobelein, a member of the firm, says that they have used oil from the Los Angeles field for several years and never had any accidents or trouble. The firm uses it for fuel in its boilers, and Mr. Zobelein says he finds it easy and safe to handle.

R. H. Lacy, of the Lacy Manufacturing company, says: "It seems to me it would be better for the oil industry if that bill were not passed. Although we are using distillate now, we have used the light crude oil and found it perfectly safe."

THE SANTA FE.

One of the largest consumers interested is the Santa Fe and F. T. Perris, manager of the oil properties for the Santa Fe at Fullerton and also of the petroleum oil companies of the Kern River, says regarding light fuel oils and the flash test:

"Notwithstanding the low flash of some of our oils, I want to say that we have been using the lowest of these for months past, with perfect safety, in the railroad furnace at San Bernardino, making car axles. I am also constantly using it as fuel at our oil furnace for dressing bits at Olinda.

"The No. 26 oil, from our field, which contains the largest number of heat units of any oil yet analyzed by our chemist, flashes at 85 degrees, yet we have been experimenting with it in locomotives and stationary engines with decided advantage and perfect safety.

"It seems to me the effort to change, or even designate the flash test is a proceeding based on entirely erroneous ideas, and if attempted to be made law can be defeated on the ground that it is special legislation in favor of one petroleum product and against another.

"It would seem more in consonance with justice and as an aid to the development of the oil industry to its fullest to legislate for the more perfect handling of our light oils and against the carelessness

often witnessed in using such. Ordinary illuminating gas, gasoline as fuel in stoves, and gasoline and distillates applied to gas engines, are all dangerous if not manipulated with care.

"The gas from the heavy oils is, perhaps, as dangerous as that from light oils when brought in contact with a flame, as shown by many instances of men being burned through examining tanks on cars by lantern light. As a matter of fact I have banished every lantern from our wells at Oneida, and we have supplied our rigs and derricks with electric lights, and our foreman with hand electric lamps, which may be held in a gas jet with safety.

"The handling of light oils, or oils with a low flash test, may with consistence be made a matter of legislation, the same as the handling of commercial gas or steam, and, I believe, would receive the support of all oil producers, but to legislate against a product of incalculable value to the State would be a step backward, and I cannot think would be supported by the legislative wisdom of our law makers."

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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The Santa Fe officials have had the roadbed between Hesperia and Barstow and Mojave and Seligman thoroughly coated with oil. This will add materially to the comfort of all crossing the desert.

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# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### GLENN.

The new machinery recently purchased by the Washington-Oil company from the Corning Oil company, in Tehama county, is now in position, and the drill is again penetrating the earth at a depth of almost 2,000 feet.

### ELGIN.

The Vista Oil company in section 31 has commenced drilling, and will put down several new wells.

The Lion is making shipments of oil to a consumer in San Francisco. A car-load is shipped out three times a week.

We are informed that two more refineries have been contracted for to go in near the Standard tanks at Bakersfield.

On section 29 the Eastern Consolidated has put its sixth well to pumping and will discontinue new operations for the present.

There are now about fifteen rigs running in the Kern River field, and work now contemplated promises to double that number in the course of 30 days.

The Illinois Crude, Kern River district, is now pumping its six wells and the yield is highly satisfactory. The rig is up for No. 7 and drilling will shortly be in progress again.

The Sunset Center will resume the development of its territory. Four new wells are to be drilled, and work is already in progress on the first rig. R. L. Peeler has the contract to sink the wells.

The Jewett-Blodgett refinery has been increasing its still capacity, and will shortly be running again to its full limit. There is a brisk demand for the product of the refinery, orders arriving as fast as they can be filled.

The Diamond company, at Sunset, the pioneer operator on the flat near the terminus of the railroad and the explorer of territory that was declared to be worthless, has two splendid wells—producers from which the oil flows as freely as water from a spring. The gas supply from these wells is particularly strong, and the full amount necessary for the camp is obtained from this source. The gas supply from these wells is particularly strong, and the full amount necessary for the camp is obtained from this source. Close by is the Queen, Charter, St. Paul and other companies that have made splendid progress.

The Potomac Oil company is getting ready to drill two new wells, as is also the Columbia and

the Continental, and it is said the Mecca will drill several more wells, not, however before a month or so.

The Mercedes Oil and Development company has purchased property in section 8, 29-28, for the purpose of erecting a refinery, which will be in operation before very long. This is the old Arizona-Western property.

The refining proposition has proven so successful that, at least ten refineries are in contemplation of erection, before a year is out, around Bakersfield, and refining is fast solving the problem what to do with the oil.

On Section 4 the Four Oil company has machinery in position to begin drilling on the first of several wells proposed. The Black Jack, on the same section, together with associated companies, the Alma and Alma Jr. are getting ready to start the drill.

On section 5 the Del Rey is clearing out and deepening its present preparatory to continuing the work of the drill in new wells. This company has started up under new management, and new life and considerable new money has been put into the work.

The King Refining company have leased land from the Alladin Oil company for the purpose of putting in a refinery. Their stills have arrived, and they expect to begin operations this week. They intend devoting their attention to the manufacture of distillates and asphaltum.

The Southwestern Refining company have just purchased ten acres on section 7, 29 28 for the purpose of installing a refining plant, the stills for this plant are at the present time being installed and will be in operation in a very short time. R. D. Robinson & company are conducting this enterprise.

The Monte Cristo is still adding to its number of producers. Three strings of tools are in operation, and the rig is now up for well No. 48. Well No. 12, whose spectacular performances as a gusher, attracted considerable attention at the time of its completion, but which later sanded up and refused to flow, is again a very thrifty producer. The well is now on the beam and is doing well.

The Clark Refined Oil company has commenced the operation of their new refinery, which has only been installed a little over two months. They have a capacity of 250 barrels daily. They refine the crude product into illuminat-

ing oil, distillates, lubricants and neutrals. In their short experience they have found the business of refining so profitable that they are making arrangements to greatly increase their capacity in the near future.

The Maricopa's well No. 2 is a splendid testimonial of the productive capacity of Sunset sands. Two reservoirs, with a total capacity of about 35,000 barrels are filled to the top, and for months past the sales made by the company have been taken from these reservoirs. An engine is employed lifting the oil up into tanks from which the wagons are loaded, but the well does not require this force to land its product on the surface. It flows, and even after a long run, during which time more or less sand has accumulated, a good stream of oil is flowing into the reservoirs. With the exception of a period of eighteen days, during which time the well was bailed for ten or twelve hours daily, the product has flowed freely; at times in a regular torrent and again settling down to a steady flow.

The San Francisco and McKittrick Oil Company of McKittrick is rapidly pushing to the front. They have lately commenced the work in earnest of developing their extensive property. Their one well, now pumping 250 barrels per day, is to be increased by others as fast as circumstances will permit. Eastern drillers have arrived and now have one well down 331 feet, where the water is shut off with 11½ casing, and 8-inch drive pipe is going in. It is the intention of the company to continue work until eight to ten wells are completed, when they will have a property second to none in the State. Owning 150 acres of land, with the water to develop it, and located only one mile from the railroad with their own pipe line, gives them advantages which must count greatly in their favor. All indications point to their becoming a factor in the oil business in the near future.

The general improvement in the condition of the oil market, the assurance that the Midland Pacific Railroad will be built to tide water and that a pipe-line will be constructed by the California Consolidated Oil Fields company, connecting the wells of the Sunset and Midway fields with storage tanks at the terminus of the railroad, has improved the situation at Sunset, and already there is promise that the present year will be a busy one in that district. Even during the depression of the past two years there has been no small amount of development work performed, and, as a result, numerous wells have been brought in and the production of the field largely increased. No extensive shipments have been made for the reason that many of the wells are

located a considerable distance from the road, and the low market price and the high freight would allow a very small margin of profit to the producer. But Sunset has oil—train and ship loads of it—and with the completion of the proposed enterprises, it can be delivered to the consumer and return a substantial reward to the producers.

### LOS ANGELES.

The Central, Home, Whittier Crude, Turner and Warner companies are doing good work. New derricks are in evidence in each instance.

The Whittier-Fillmore Oil company are staying with their proposition with considerable pluck. They now have a hole 2,250 feet deep with some oil. They are still hammering away.

The oil industry at Whittier is showing considerable more life than for some months. New rigs are being put up by most of the companies operating in this field, and in several cases new strings of tools have been started within a week or so.

### SANTA BARBARA.

The Lucky Boy Oil Company, section 31, 32-24, has struck smooth sailing again. The tools lodged at the bottom of its well have been removed and there will now be no further delay in rounding out a good producer. The company is located on a prominent piece of Sunset territory.

The Potomac has contracted for all its oil for a period of years to the Southwestern Refining Company, which is building an extensive plant near the Standard Oil Company's tank city. The Potomac will receive 40 cents per barrel for its oil and the Southwestern Refinery has practically its entire product sold for four years. Lubricating oils of different grade will be the principle articles of manufacture.

Two thousand acres, comprising a portion of the Los Alamos grant, in the northern part of this county, known as the De la Guerra tract, have just passed from the possession of the Commercial Bank of San Luis Obispo to A. H. McKay. The properties lie immediately north of the Careaga rancho, where valuable wells have been discovered and are now in operation. McKay, who was formerly manager and stockholder of the Careaga Rancho company, will begin immediately to sink wells on the property.

### SAN MATEO.

The report comes from good authority that Saltee, Hayne & Guiberson struck 700 feet of oil in well No. 5 this week. The well is down about 1,600 or 1,700 feet.

G. P. Nelson, of the oil wells on the Higgins ranch, bought a car of fuel oil and had it shipped to San Mateo this week. He is hav-



ing it hauled over to use at the company's wells here. There has been a building and rig erected on the place, and boring for oil commenced about a week ago. The Wisconsin well is now on the pump.

#### WYOMING.

Cold weather prevails in the Wyoming oil fields on account of which development is practically at a standstill. The few companies who had provided for a water supply are making the most of their good fortune and are rapidly pushing the drill toward the oil strata.

The Bettys Oil & Development company have received the last of their machinery which is rapidly being put in place and drilling will commence by the first of next week. They have been to considerable expense and trouble repairing damage done to their dam by muskrats which nearly cost them their water supply for the winter.

At the Michigan & Wyoming Oil company's well everything is in flourishing condition. Some delay is being caused by a drill not fitting the stem. Water was being hauled from a spring about a mile away where an inexhaustible supply was obtainable. This company is mining its own coal from a vein that crops out a short distance from the rig.

The American Consolidated company have had another "fishing" job on section 34, near Spring valley. Last Saturday while drilling at a depth of 1,000 feet they encountered quite a flow of gas and immediately lost the bit. The bit was recovered Wednesday and drilling continued but although gas continues to flow no oil has been encountered. The indications, however, are excellent. They have suspended operations at their other well on account of the lack of water supply.

The Groshen & Carter company are working under difficulties. This is the well where the strike was made some time ago but not being satisfied with what they had an attempt was made to case the first sand and drill deeper with the result that the hole went crooked. A 150 charge of dynamite was lowered into the hole to remedy this fault but nothing was accomplished more than to ruin their sand line which was kinked for several hundred feet. A new hole may have to be drilled here.

Acocks brothers returned the first of the week from the field after more than a week of locating. They succeeded in securing a large amount of valuable oil lands. The first of the year they were in the saddle continually for forty-eight hours stopping only to change horses and eat. They worked at night without the aid of lanterns that they might not attract the notice of other locators. They had many a fight but the rugged mountaineers invariably came out victorious. Together with what land they covered with

assessment work last year they now control about 100,000 acres of land.

Many oil companies are being formed to operate in the Uinta field the coming season. Among the most notable are the Nickerbocker company, formed in Grand Rapids, Mich., the Ohio-Wyoming company, formed of some of the leading professional men of Cincinnati, Ohio, the Hawthorne company, formed in Los Angeles, California. Last, but not least is a company that is at present being organized in Cincinnati by a banking and brokers firm of that city which will control in the neighborhood of 24,000 acres of land in this field. They will be capitalized for \$20,000,000, and as soon as negotiations are culminated active development work will commence. It is the intention of this concern to put down twelve wells in the early spring. The company has not as yet been christened. Our genial friend W. Cashin, of the well known firm of Beeman & Cashin is pushing this enterprise.

#### OIL-BURNING SMELTER.

##### A New and Successful Process of Refining Ore With Oil.

The mining public has not yet been afforded any adequate account of the plans and method of operation of the oil-burning smelting furnace, designed by the eminent mining engineer, Mr. M. P. Boss, and which has just been put into experimental operation at Mayer, Ariz., in the handling of ores from the George P. Treadwell mining property of that district. It has long been currently reported as an attempt to adapt oil fuel to the blast furnace, but in fact it is a new adaptation of fuel oil to the reverberatory furnace.

According to the Phoenix Democrat, E. W. Randall, mining expert at Kansas City, recently visited the plant, and in speaking of the showing made, stated that the new method of handling ores would mean much for the industry in the territory. The experimental plant was built by the Hydro-Carbon Smelting company of New York, and now has a capacity of seventy-five to one hundred tons a day, much depending on the nature of the ore. It was designed for handling copper, but can be made to treat lead and iron ores equally as well. The principal feature of the smelter proper is a continuous reverberatory action, a flame impacting upon the longer side of a pile of ore upon the inclined bottom of the furnace. On a hearth, which receives its heat from the furnace hearth, the ore is roasted. The furnace is equipped with five oil burners that are capable of producing intense heat. The converters of the plant are built on a new principle. If successful the smelting process will be continuous, and the ore will be fed from the roaster at a considerable elevation above the converters, and will be roasted, smelted and refined until pure copper comes from the converters without any additional handling, thus affecting a large saving of expense.

## WYOMING OIL FIELDS.

### Great Oil Industry Discovered by the Union Pacific Railroad.

#### One Well Completed by a California Oil Company That Produces Over One Hundred Barrels a Day of Valuable Refining Oil.

EVANSTON, WYO., Jan. 19, 1903.

Editor, PACIFIC OIL REPORTER: Although it was well known for many years that petroleum existed in Uinta county, Wyoming, in the nature of "seepages," it is but recently that the fact was demonstrated that it was to be had in paying quantities and in fine quality. In the early sixties a well was dug by Judge Carter, then a post trader at Fort Bridger, and was in operation for several years, the product being sold along the Mormon trail for axle grease and as a medicant for both man and beast. This well, which was only about fifty feet deep, was nothing more or less than a seepage, yet it is estimated that over 150 barrels of oil were taken from it. Finally the judge died and the well caved in and was abandoned. From this time up to September, 1900, nothing whatever was done in the way of oil development. At this time the U. P., being in need of a water supply at Spring Valley, engaged a Mr. L. E. Nebergall to sink an artesian well at that point. Mr. Nebergall went down 1150 feet without striking water, but at this point he did strike oil in large quantities. On reporting the matter to the railway company they instructed him to cease drilling and cap the well, and they gave out word that it was a dry hole. About this time the same railway company, while constructing the Aspen tunnel, encountered oil sand at two different points and workmen claim the flow was so great from them then that ditches had to be dug to carry off the oil.

When the second strike was made the gas became ignited from the workmen's lamps and a terrific explosion occurred which caused the death of eight men, and oil continued to flow with such persistency that great difficulty was experienced in checking it. Finally a bed of solid concrete twenty feet in thickness was laid to shut off this flow and work proceeded. It has lately been learned however that the concrete has been warped and cracked by the great pressure beneath to such an extent that extensive repairs were necessary. Now the reason the U. P. wished to keep this matter a secret was that it had extensive land possessions given it by the old Congressional land grant which still remained unpatented, and as this grant described the land as "agricultural and grazing lands" it could be claimed under the mineral laws unless fully patented, if it could be shown that oil existed in paying quantities, and the railway company did not care to go to the great expense of securing patents and paying taxes on this great area of land that was practically worthless to them until such a time as it became salable. The grant consisted of every alternate section for a distance of twenty miles on each side of the railway line.

Now every one knows that an oil strike cannot be suppressed, so, as the news gradually leaked out, parties who saw the magnitude of the discovery fled on large areas of land and on this particular section where the discovery was made by Mr. Nebergall, and a costly litigation followed between them and the railway company and a petty warfare was carried on for several months by the eager locators and the railway company who attempted to protect the property they considered justly theirs. They built a shanty over the well and placed armed guards in it to keep adventurers away, they also placed several charges of dynamite under the roadway which, owing to the physical characteristics of the country, was the only way of reaching the section, and then gave out word that any attempt to move a drilling outfit on would result in the destruction of the entire party.

Workmen uncautiously told of the affair, and a complaint was made to Sheriff James, who went to the scene of conflict and exploded the dynamite. The explosion was terrific, tearing an immense hole in the ground, and it could be heard for miles. It was then that the Interior Department sent a Mr. Zeverly here to adjust the matter. He

arrived at Evanston early in August, and next day left for Spring Valley, accompanied by a large crowd composed of attorneys for both the litigants. On arriving at the well Mr. Zeverly's first work was to remove the shanty in which the guards had been housed. It was then found that the bore had been effectually capped by the insertion of a wooden plug, on top of which was about three feet of loose rock and earth, the whole being topped off with a foot of solid cement. As this obstruction was removed the oil came foaming out of the casing, and bailing commenced. A 100-barrel tank had been placed on the track a short distance away, to which a pipe-line had been laid. The oil was hauled up in a 15-gallon bailer and allowed to run into the piping and thence to the tank. The bailing commenced at 10 A. M., and by 6 o'clock that night the tank had been filled and oil still stood several hundred feet in the well, showing a steady inflow. There was no doubt as to the character of the well or quality of the oil, experts agreeing that it was worth from \$5 to \$8 per barrel.

The fact demonstrated, the well was again capped, and no oil has been taken from it, as the railway company does not seem inclined to take any part in Wyoming's oil development until such a time as they have secured clear title to all its lands. Parties who have recently visited the well claim that the great pressure from below has caused a leak in the capping, and that considerable oil is escaping, which forms in a little pool below. Since these discoveries development has been steadily pushed along, and several good strikes have been made, of which that of the Atlantic and Pacific, a California company and the Jager company are the best. The 'Ellis' well, where the A. & P. company made their strike, is a 100-barrel a day producer, while the Jager well is considered a 40-barrel a day producer, though there is yet another stratum of oil sand to encounter at this well, and the first sand has been cased off with the intention of sinking the well deeper as soon as a water supply can be obtained in the spring. The A. & P. will lay a pipe-line from the 'Ellis' well to Spring Valley, a distance of two miles as soon as warmer weather comes.

The Groshen & Carter Co. made a fair strike on section 34, but lost their drilling tools and a long "fishing" job resulted, so that as yet nothing definite can be said as to what the well will produce.

The Idaho-Wyoming Co. made a fair strike in the Fossil district but were not satisfied, so cased off the sands and are drilling deeper. Many new companies have been organized and there are at present about 30 rigs drilling in this field; a great many of them, however are handicapped by the cold weather shutting off the water supply so that very little progress will be made before the warmer weather comes.

Great excitement prevailed in the Uinta field as the new year was ushered in. Although over \$200,000 had been expended in 1902 in assessment work about one-fourth of the oil field yet remained unprotected and it was the rush for this land that caused the mad stampede. Three large parties were formed which secured the greater part of this land. One was headed by F. M. White, who secured about 30,000 acres; another by Col. M. M. Ketchum, who secured about the same as White, and the third was headed by Isador Kastor, who claims to have secured 36,000 acres. W. J. Cashin also secured a considerable area. Individuals were glad to content themselves with a single claim. Firearms, clubs and fists were freely used in the fight, but fortunately no one was seriously injured. In many cases two to six persons have located on some particularly favorable claim and costly litigation is sure to follow.

As I have already taken up more space than allowed me I will bring this letter to a close. In my next I will endeavor to show what is being done by the various companies operating here.

Yours very truly,

E. S. EASTMAN.



## AN EASTERN VIEW.

## Carelessness Caused the Progresso Accident.

As the present agitation was started in San Francisco after and on account of the accident to the Progresso, the following from the Petroleum Gazette of Pittsburg, one of the most reliable oil papers in the country, is of interest:

The recent blowing up of the vessel Progresso at San Francisco, while changes were in progress to complete its equipment for using oil instead of coal for fuel, has been productive of premature conclusions and of the stimulation of prejudices and unwarranted impressions, as has been the case with all notable fires and other forms of accident in which oil has been a factor. In most cases where the cause of fires is said to be "the explosion of a lamp," thus reflecting on the quality of the oil or the character of the lamp, or both, the real cause would be better defined as carelessness. So it would with reference to most other oil fires and so-called explosions associated with them. In speaking of the deplorable happening at San Francisco, the chief engineer of the Union Iron Works of that city is quoted as pointing out that the quality of oil in the Progresso's tank had very little to do with the explosion. While admitting that the light oil furnished to the Progresso would, when exposed to the air, generate gas more readily than heavier oil, he maintains that the heavier oil would have generated gas sufficient to cause the explosion if brought in contact with some flame or other heat that exploded the gas given off by the light oil.

"Ships do not burn heavy oil because it is safer than light oil," said Mr. Forsyth, "but because it is cheaper. For many years all the fuel oil used in this city was the light Coalinga oil, and there were no accidents. Within the past few years the heavy oil has been placed on the market in great quantities, and it is now generally used because the price is lower than that of the light oil. The supply of light oil is now very limited and nearly the entire output is used by the gas companies in the manufacture of illuminating gas. It is the only kind of oil that will serve their purpose. This and the limited supply are what keep up the price of light oil and prevent its general use."

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, February 4:

AZTEC.		
100 at	95.....	\$ 95 00
520 at	1 00.....	520 00
CENTRAL POINT CON.		
600 at	85.....	510 00
CALIFORNIA STANDARD.		
1,000 at	17.....	170 00
FOUR.		
1,000 at	60.....	600 00
HOME OIL.		
400 at	3 30 (S 30).....	1,320 00
3,200 at	3 30.....	10,560 00
2,400 at	3 35.....	8,040 00
100 at	3 35 (S 30).....	335 00
100 at	3 25.....	325 00
16 at	3 20.....	51 20
INDEPENDENCE.		
15,500 at	12.....	1,860 00
5,500 at	10.....	550 00
1,500 at	11.....	165 00

5,000 at	13.....	650 00
1,000 at	11 (S 90).....	110 00
JUNCTION.		
1,000 at	12.....	120 00
1,000 at	13.....	130 00
500 at	14.....	70 00
1,800 at	15.....	270 00
1,500 at	17.....	255 00
500 at	18.....	90 00

KERN.		
50 at	5 25.....	262 50
725 at	5 50.....	3,987 50

KERN RIVER OIL.		
10 at	15 00 (B 90).....	150 00

LION.		
5,800 at	10.....	580 00
9,700 at	09.....	873 00
3,500 at	09 (B 30).....	315 00

MONARCH.		
50 at	39.....	19 50
4,000 at	40.....	160 00
600 at	42.....	252 00
2,200 at	41.....	902 00
200 at	43.....	86 00

MONTE CRISTO.		
600 at	1 47 1/2.....	885 00
200 at	1 45.....	290 00

OCCIDENTAL OIL.		
4,500 at	20.....	900 00
1,250 at	21.....	262 50

OIL CITY PETROLEUM.		
200 at	25.....	50 00
200 at	26.....	52 00
300 at	22.....	66 00

PEERLESS.		
150 at	14 75.....	2,212 50
10 at	15 50.....	155 00

PETROLEUM CENTER.		
100 at	04.....	4 00

REED CRUDE.		
1,000 at	35.....	350 00
700 at	35 (S 10).....	245 00
100 at	36.....	36 00

SAN JOAQUIN.		
10 at	7 75.....	77 50
200 at	7 87 1/2.....	1,575 00

SENATOR.		
400 at	85.....	340 00

SOVEREIGN.		
6,500 at	40.....	600 00
200 at	42.....	84 00

STERLING.		
800 at	3 00.....	2,400 00
1,100 at	2 95.....	3,345 00
100 at	2 90 (S 30).....	290 00
1,100 at	2 85.....	3,135 00
300 at	2 90.....	870 00
2,400 at	2 80.....	6,720 00
1,400 at	2 75.....	3,850 00
600 at	2 70.....	1,620 00
500 at	2 70 (S 90).....	1,350 00
100 at	2 75 (S 90).....	275 00
200 at	2 80 (B 5).....	560 00
500 at	2 75 (B 5).....	1,375 00
200 at	27 00 (S 30).....	540 00

THIRTY-THREE.		
40 at	9 00.....	360 00
25 at	9 25.....	231 25

TWENTY-EIGHT.		
200 at	2 75.....	550 00
6,435 at	2 60.....	16,731 00
167 at	3 00 (B 90).....	501 00
1,200 at	2 80 (B 90).....	3,360 00
100 at	2 70 (B 60).....	270 00
900 at	2 65 (B 30).....	2,385 00
500 at	2 70 (B 30).....	1,350 00
875 at	2 50.....	2,187 50
300 at	2 40.....	720 00
1,200 at	2 50.....	3,000 00
800 at	2 55.....	2,040 00
200 at	2 45.....	490 00

WOLVERINE.		
200 at	65.....	130 00

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25 at	9 25.....	231 25

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For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

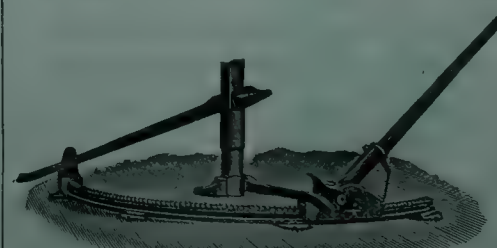
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## ALL SPEAK HIGHLY OF IT.

### The Special New Year's Edition Receives High Praise.

**Oil Men and Papers Published in the Great Oil Districts, East and West, Praise the Pacific Oil Reporter.**

#### Mirrors the Oil Industry.

A special edition of the PACIFIC OIL REPORTER, just issued, mirrors the oil industry of California "as in a looking-glass." A more complete review of an industry has never come under our observation; text and illustrations leave nothing unsaid. The statistics show that 2,152 wells were operated during 1902 and produced 13,692,514 barrels of oil, nearly 9,000,000 barrels of the product coming from the Kern River district. The stock of oil in tankage and reservoirs is 3,850,000 barrels. No less than 424 wells were capped during the year, owing to lack of market and of transportation facilities, and 138 wells are in process of drilling. It is expected that consumption will reach 20,000,000 barrels by the close of 1903. The S. P. company is now using at the rate of 3,628,800 barrels a year on 504 locomotives, and the Santa Fe is using oil on 208 locomotives. No less than 111 steamers are burning oil. Approximately \$2,500,000 was paid in dividends by oil companies in 1902. Fifty-cent oil is looked for by the close of the current year.—Modesto Herald.

#### None Possess More Merit.

Among the many New Year publications which have found their way to our sanctum none possess more merit and artistic workmanship than does the PACIFIC OIL REPORTER, published at San Francisco. The number embraces 56 pages of half-tone views of oil wells of the entire Pacific coast, and likenesses of well-known promoters and writers, beside valuable information on oil, and reminiscences pertaining to the early life of the oil industry. There are 68 views within the covers, printed on good paper, and is invaluable as an exponent of the entire oil industry on the Pacific coast.—Fullerton Tribune.

#### A Magnificent Edition.

The PACIFIC OIL REPORTER issued a magnificent New Year edition. The various oil fields of California are portrayed and pictured.—Hollister Free Lance.

#### Full of Information.

The special New Year's edition of the PACIFIC OIL REPORTER consists of 56 pages, crammed full of information, about the California oil field. The number is beautifully illustrated and contains several maps of the different oil districts. It also presents a summarized statement of the production for the past year, the number of producing wells, and a large amount of other statistics of interest to all engaged in the great petroleum industry.—Oil City Derrick.

### REPORT OF PEERLESS.

#### Big Contracts Necessitate Large Improvements.

As has been stated again and again in these columns the Peerless is about the only oil company that furnishes its stockholders a report from time to time as to how its affairs are progressing. Its frankness and openness in this respect is one reason why its stock has advanced from \$1 up to \$15.

The corporation is in a very thrifty condition and the prospects are particularly bright for substantial dividends. From the report we extract the following:

##### REPORT No. 49.

During November, 1902, we entered into an agreement with the Pacific Coast Oil company here (Standard Oil company) providing as follows:

For the transfer to said Pacific Coast Oil company of all our contracts for the

sale and delivery of oil, as well as all our contracts for the transportation of oil and all our contracts for the purchase of oil. Delivery December 1, 1902.

For the sale to said Pacific Coast Oil company of all our storage and delivery plants. Delivery December 1, 1902.

For the termination on January 1, 1903, of all our former contracts for the sale of oil to said Pacific Coast Oil company.

For the sale to said Pacific Coast Oil company of 9,000,000 barrels of oil at 20 cents per barrel, the same to be delivered at the rate of 150,000 barrels per month, beginning January 1, 1903.

For the purpose of enabling us to carry out the above named agreement, the following improvements have been ordered:

The sinking of nine new wells.

The erection of two additional 70 horse-power boilers at Power Plant No. 1, the same at Power Plant No. 2 and a 55 horse-power boiler at our pipe-line pumping station.

The sinking of a fourth water well and

the erection of an additional water tank.

The erection of five additional cottages to be occupied by our workmen.

The construction of a fourth reservoir. The foregoing improvements will cost approximately \$65,000.

Four new cottages have been completed and a fifth is being erected, making six besides our superintendent's residence.

Our new 55 horse-power boiler has been set up at our pipe-line pumping station.

Two additional 70 horse-power boilers have been set up at Power Plant No. 2, and two additional 70 horse-power boilers are now being set up at Power Plant No. 1.

The excavation for reservoir No. 4, immediately north of reservoir No. 3, is in progress. The dimensions of this reservoir cannot be given now but it is to be much larger than any of our others.

The use of our pipe-line and loading rack have been rented for one year to Sterling Oil & Development company at a fair rental.

October. Cash on hand, October 1st, \$8,656.61; receipts during the month, \$38,414.47; total, \$42,071.08. Dividend paid, \$7,000; other disbursements, \$25,128.11. Total disbursements, \$30,128.11.

November. Cash on hand November 1, \$11,912.97; receipts during month, \$26,283.43; total, \$38,216.40. Dividend paid, \$8,000; other disbursements, \$21,063.00. Total disbursements, \$29,063.

December. Cash on hand December 1st, \$9,163.40; receipts during month, \$44,933.63; total, \$54,097.03. Dividend paid, \$8,000; other disbursements, \$16,688.76. Total disbursements, \$24,688.76.

Cash on hand January 1st, \$29,408.27. As already announced, a tenth dividend of 10 cents per share, will be paid February 1st.

The amount of the dividend to be paid March 1st has not been determined yet, but will be no less than that of February 1st.

### OIL IN ALASKA.

#### Wild Prophecy As to the Importance of the New Field.

"The oil district that was discovered last August in Alaska, about 140 miles east of Valdez, bids fair to surpass the California and Beaumont fields," says Dr. M. W. Brunner, who is interested in the new-found fields. Dr. Brunner has been in the various parts of Alaska for the past five years, and was one of the first to reach the oil district after the flow was struck last summer.

"There is no doubt that within a year this district will be a large producer. The oil that has been struck is much superior to the California and Beaumont oils, due to its peculiar composition.

"The whole country in that vicinity teems with oil indications, while the belt upon which the discovery has been made is about twenty-five miles long by eighty wide, beginning to the east of the mouth of Copper River. It is situated at the base of Mount St. Elias, and the gusher is within a short distance of the shore of the ocean. The English company, which owns several thousand acres of ground, began boring and struck the big gusher at a depth of 365 feet. The flow of it was enormous, but there were no means at hand of determining its amount, and now it is capped and the flow retarded.

"There are now eight or ten

companies with strong financial backing making active preparations for an extensive and complete exploration early in the spring. It is very possible that refineries will be constructed in the immediate vicinity of the fields, for the oil is dangerous to ship on account of its explosive qualities. The only oil in the world that can in any way approach it is a very limited deposit in Russia. There are now about 200 white men on the ground, but within ten months it is my estimation that there will be fifty wells drilled, and by that time there will be a good-sized city in the district.

"One beauty of the location of the fields is its nearness to water transportation and independent of the dictates of railroads. There are ample harbor facilities right at the fields. Some of the companies that will commence boring shortly are financed by some of the wealthiest capitalists on the coast. The English company has heretofore been the most extensive operator and has expended \$250,000."

### Medium Located Oil Well.

A number of business men of Cleveland, Ohio, are congratulating themselves over the faith of one of their number in the powers of a medium, who was consulted relative to the sinking of an oil well in Van Wert county.

Captain Powell, of the Kear-Jukes Producing company, which has large leases in Wilshire township, of that county, showed the medium the blue prints of the company's property.

She went into a trance and he asked:

"Where shall we sink the first well?"

"There," said the medium, placing her finger on the blue print.

The location was carefully noted and the well was sunk accordingly. The well was completed and the flow is estimated at ten barrels per day, and its capacity is expected to reach at least fifty when the work is completed.

### Utah Asphaltum.

The Westwater Oil and Asphaltum company, composed mostly of Salt Lake people, which controls 400 acres of land near Westwater, in Grand county, Utah, has ordered an asphaltum refinery of 100 tons capacity, which is to be in operation within sixty days. The land controlled by this company has an unlimited supply of crude asphaltum, which can be quarried at little cost. There is also a by-product of lubricating oil which has been tested and found highly satisfactory.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



## In Oklahoma.

Southwestern Oklahoma has gone oil mad. The recent developments in the oil belt at Granite have also stimulated prospecting in Kiowa county, Okla., which was embraced in the recently opened Indian reservation. Many prominent prospects have been opened. Oil has been found in a dozen places, and 1,200 oil claims were staked in the first three days of January. Locations are pouring into the recorder's offices for Greer and Kiowa counties at the rate of 500 per day. The entire city has been taken up as agricultural lands, and these filings will be contested by the oil entry men.

## A Texas Refinery.

A new oil refinery is being erected at Port Arthur, Texas. It will cost \$1,500,000, and will be in operation within three months. The Port Arthur refinery will have 58 stills of 1,000 barrels capacity each. Twenty-five of these are new in use. The plant will have 16 tubular boilers, fired with oil, and 10 agitators to finish the reduction of the product in whatever grade desired. The entire plant is fed and relieved from about 100 tanks of capacity ranging from 500 barrels to 55,000 barrels each. From the Spindle Top region the crude oil is first piped a distance of fifteen miles to the refinery.

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" Merced	1:20 p	1:40 p		1:28 p
" Fresno	3:20 p	3:00 p		3:15 a
" Hanford	5:00 p	3:51 p		7:50 a
" Visalia	4:48 p			5:00 a
" B'kfield	7:10 p	5:50 p		7:35 a
" Kan. C.		2:31 p		8:02 a
" Chicago		2:15 p		8:47 p

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
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## DIVIDEND NOTICE.

**PERFLESS OIL COMPANY—ON DECEMBER 1, 1903** declared a dividend No. 10, of ten (10) cents per share payable February 1, 1904. Books close January 20, 1904. The address of stockholder W. I. Tase is desired. GERDON BRADLEY, Assistant Secretary.

## CYGNET PETROLEUM CO

Capital.....\$150,000  
50,000 shares at \$3.  
Location—Fresno county.  
Directors—Chas. L. Fair, president, Eliza W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McHiro, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

## STANDARD ROCK OIL COMPANY.

Capital.....\$100,000  
Treasury stock.....\$50,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. E. J. Henslin.  
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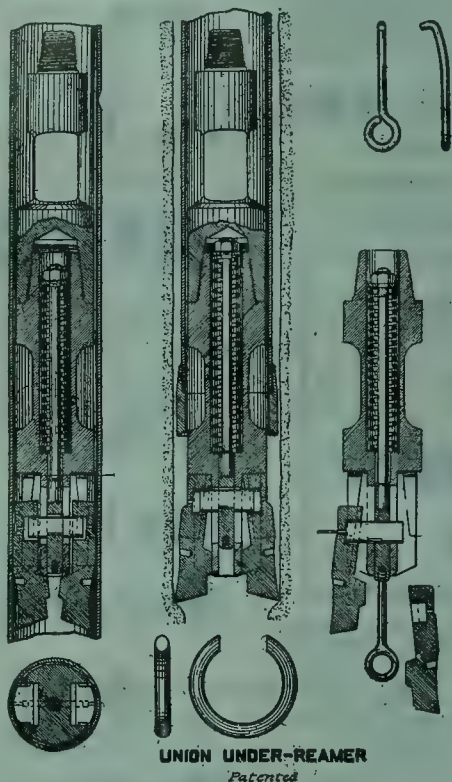
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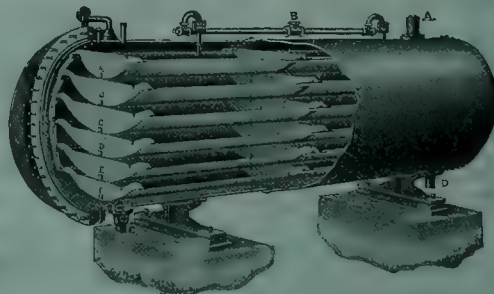
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 14.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 7, 1903.

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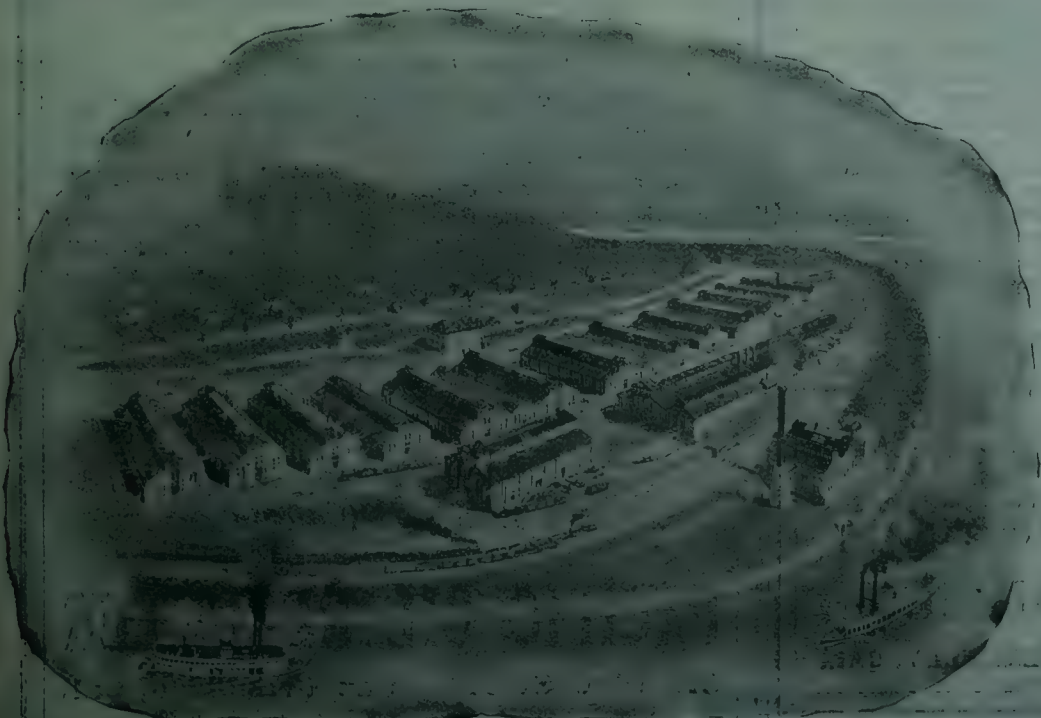
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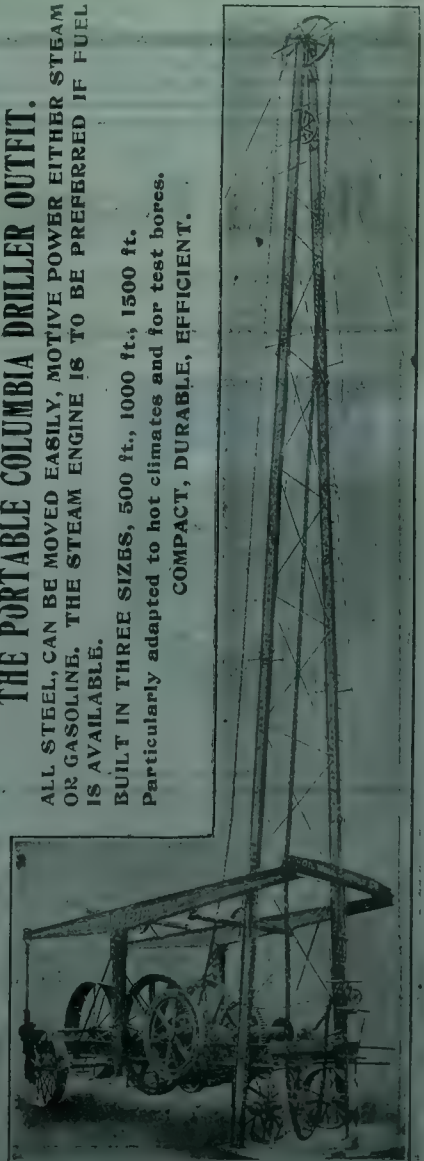
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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# PACIFIC OIL REPORTER

Vol. 4. No. 14.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 7, 1903.

PRICE, TEN CENTS

## FLASH TEST BILL KILLED.

### Testimony Given Before Committee on Mines and Mining.

#### Senators and Assemblymen All Agree that the Flash Test Bill as Originally Introduced Has Absolutely No Likelihood of Being Passed.

On Monday evening the Mines and Mining Committee of the Senate gave the oil men and experts a hearing and discussed the merits and demerits of Senate Bill 225 known as the "Flash Test Bill" introduced by Senator Ralston.

Senator Ralston said that he had introduced the bill at the request of Dr. C. T. Deane, Secretary of the California Petroleum Miners' Association, and that he had expected Dr. Deane to support the bill. When he, Ralston, was violently criticised by the oil men for having introduced the bill, instead of the bill receiving support from Dr. Deane, that gentleman had asked him to withdraw the bill on account of the many and apparently just criticisms heaped upon it.

Senator Ralston said that the matter had gone too far for him to withdraw the bill and he desired the Committee on Mines and Mining to decide its fate; he thereupon invited free and full permission from those present.

Fire Marshal Towe was the first speaker, and even he thought that the bill if passed should be decidedly amended. He suggested that the act be so amended that kerosene be made to stand a flash test of 110 degrees instead of a fire test of 120 degrees. He also favored a law which should provide for a flash test of 110 degrees for crude petroleum used as fuel. He stated that the use of crude oil for fuel on steamers could not be regulated by a city or State ordinance and that it was a matter for the Federal Government to decide.

Mr. A. M. Hunt of the Independent Electric Company said his experience had been with crude oil for fuel. If only crude petroleum were to be used, it would bar out the use of residuary products. The test of 150 degrees was out of the question. Legislation should not go to a test, but rather to safeguards in the storage of oil.

"If you attempt to establish a uniform flash point," said Mr. Hunt, "you are making a rule to suit natural conditions that greatly vary. A common law is not practical as regards an oil test. The subject should be left to local regulation. If you have proper safeguards thrown about the storage of oils you are thoroughly protected.

"When you speak of safe oil, I ask if you mean fool-proof oil. No oil is fool-proof. All you can do is to let the tools blow themselves up and get out of the way. The country is better off without them."

Mr. Hunt, like Marshal Towe, was subjected to much questioning. He argued throughout against the establishment of a test. A test of 110 degrees would often impose a hardship on con-

sumers. He admitted that the higher the test of oils the greater the degree of safety.

Mr. Hunt is in charge of the engineering department of the Independent Electric Lighting and Power Company, consuming large quantities of oil daily.

Professor O'Neil of the University of California chemistry department was then introduced. He said: "Crude oil is a mixture of gas, liquid and solid substance. A violent explosion can occur only when gas and air are well mixed. That was the condition on the Progreso.

"To my mind the flash point is perhaps the least definite measure for determining the safety of oil, as the conditions may be influenced by thermal or climatic conditions. Regulations should be directed toward storage rather than a flash point. A general law for flash point might work hardships. Local regulations are more advisable. A comparatively low flashing oil can be burned with safety if proper precautions are used."

Professor O'Neil, like those who preceded him, was given a round of catechizing, going into many technical points as to gravity of oils, gases and vapors, and their explosive qualities.

Fred D. Perris, who is connected with the Santa Fe, spoke of experiments conducted as to gravity and flash tests by that company. He found that careful mechanical safeguards had prevented any accidents.

After a further general discussion, participated in by Mr. John Baker Jr. and others, Senator Ralston announced that the committee would file a report by the end of the week.

There is no doubt but the Committee on Mines and Mining will either utterly ignore the flash test bill or else so amend it that it will not be recognizable as the original bill. The chances are, however, that no action at all will be taken, as it is evident that the use of crude oil as fuel is not a matter for the Legislature, and that the conditions existing in the various counties and in various oil districts as well as the wide difference in the character of the oil produced in the different fields makes it impossible for any law to be passed which will be just and satisfactory to the many great and diverted interests of the different oil fields.

That whatever action taken will be satisfactory to the oil industry is indicated by a score or more of letters received by the PACIFIC OIL REPORTER from different members of the Legislature. From these we extract a few in order to show the tenor of opinion prevailing among the law makers of our Senate and Assembly:

Sacramento, Feb. 2, 1903.

Mr. W. B. Winn, 318 Pine street, San Francisco, Cal.

Dear Sir: Replying to your favor of the 31st ult. I desire to say that I am very much opposed to the bill to which you refer, and I feel confident that it will not pass the Senate unless it is amended to meet the approval of all concerned. This bill will be discussed before the Committee on Mines and Mining to-night at 8 o'clock, and I hope that you will be present at that time.

Sincerely yours, C. M. Belshaw.

Senator Eleventh District.

Sacramento, Cal., Feb. 3, 1903.

W. B. Winn, Esq., 318 Pine street, San Francisco, Cal.

Dear Sir: Your favor in reference to bill now before the Legislature, referring to crude petroleum and its products was duly received. In answer I beg leave to state that I am unalterably opposed to the same and shall so vote. Very truly yours,

Wm. H. Savage,

Chairman Senate Committee on Municipal Corporations.

Sacramento, Feb. 2, 1903.

Mr. W. B. Winn, 318 Pine street, San Francisco, Cal.

Dear Sir: Your kind favor of January 31st is at hand regarding bill relating to the use of crude petroleum and its products in California. I agree with you that the bill in its present form would be harmful to the oil interests of the State and shall accordingly oppose it. Very truly yours,

Marshall Black,

Assemblyman 57th District.

Sacramento, Cal., Feb. 3, 1903.

W. B. Winn, San Francisco, Cal.

My Dear Sir: Replying to your letter relative to the bill regarding the manufacture, sale and use of crude petroleum, will state that it was very ably discussed in the committee on Mines and Mining Monday evening, and am not in a position to state in advance what the action of that committee will be, but think that the conclusion it reaches will be acceptable to you. Very truly yours, J. B. Curtin,

Senator 12th District.

Sacramento, Feb. 2, 1903.

Pacific Oil Reporter, 318 Pine street, San Francisco, Cal.

Gentlemen: I have received your letter of January 31st with the paper referred to. I think that there is no possibility of the bill passing without a great deal of amendment. Yours truly,

E. W. Camp.

Assemblyman 69th District.

Sacramento, Feb. 2, 1903.

W. B. Winn, Esq., 318 Pine street, San Francisco, Cal.

Dear Sir: Your favor of January 31st in relation to bill requiring flash test of 140 on petroleum oil, at hand, and noted.

In reply, will say that the bill is too dead to kick. There is no danger whatever from it. Mr. Duryea, the chairman of the Mining Committee, told me that he had been asked to withdraw it. It is the child of Dr. Deane. I do not know the motive that brought about its introduction, but you need have no fear in that regard. Yours respectfully,

A. M. Drew,

Assemblyman 61st District.

Sacramento, Cal., Feb. 3, 1903.

W. B. Winn, Esq., Pacific Oil Reporter, 318 Pine street, San Francisco, Cal.

Dear Sir: I will oppose it unconditionally the Ralston oil bill if it comes up. Very sincerely,

Frank C. Prescott,

Assemblyman 76th District.

Sacramento, Feb. 2, 1903.

Mr. W. B. Winn, 318 Pine street, San Francisco, Cal.

Dear Sir: Your favor of January 31st came duly to hand, and also copy of your publication. In reply permit me to say that in my opinion the bill referred to will never pass the Senate and I am convinced it should pass the Senate and ever reach the House that it will be impossible to pass it in the House.

As you may know, I represent a district in Los Angeles County which is vitally interested in the use of crude petroleum for fuel purposes, and I could not favor a bill such as has been introduced.

A meeting is to be held this evening at which time all parties interested, pro and con, are requested to be present. I am satisfied that the various interests which are properly opposed to this bill will be well represented. You can rest assured that I shall do everything in my power to prevent such unjust measures being enacted into laws.

Thanking you for the copy of your publication, I remain, yours truly,

J. P. Transue,

Assemblyman 73d District.

Sacramento, Cal., Feb. 3, 1903.

W. B. Winn, Esq., 318 Pine street, San Francisco, Cal.

Dear Sir: Your letter of the 31st ult. at hand, and in reply I will say that I will do everything in my power to defeat the Ralston bill introduced in the Senate.

I sent a request to the oil men of Kern County that they in their meeting scheduled for last night consider this bill, and wire me result. I received a telegram this morning informing me that they had unanimously passed a resolution condemning the bill. Yours very truly,

J. D. Dorsey.

Assemblyman 66th District.

#### Standard's New Home.

On the first of the month the offices of the Standard Oil company were moved from 421 Market street to the New Rialto building, on the corner of Mission and New Montgomery streets, where the Standard will occupy the entire seventh floor. Each department has its own quarters, such as the department of Manager W. S. Miller, Pacific Coast Oil company, H. C. Breeden, Auditor Hall, Union Tank Line, Fuel Oil, engineering department, lubricating department, etc.

All the offices are richly, even luxuriantly, furnished, the furniture and carpets being of the best and representing undoubtedly a large outlay, not enough, however, probably to warrant the Standard in lowering the price of crude oil to the producer, or in adding a cent a gallon to the consumer.

In its old quarters the company has undoubtedly been greatly inconvenienced on account of lack of room, and the present change was greatly needed and is appreciated by the small army of employes.

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## OIL ON STEAMERS.

### Form of Application for Permission to Use Oil.

As stated before in these columns the Secretary of the Treasury has issued a series of regulations relating to the issue of permits to steamers to use petroleum as fuel for motive power. The great increase in the number of applications for petroleum permits, which has resulted from the recent successful experiments in the use of oil as fuel, and to some extent from the coal shortage, has induced the department to revise the regulations concerning such permits in the light of a number of recent accidents to which the department's attention has been called. It is the purpose of the Secretary of the Treasury to co-operate to the extent of his authority in facilitating the use of petroleum, both because he regards the employment of liquid fuel as an important industrial advance, and also because the free use of substitutes for coal is absolutely essential at this time. He believes, however, that the interests of the petroleum producers as well as of the general public are served by regulations designed to prevent accidents, and he has, therefore, issued the following circular letter of instructions to supervising inspectors of steamboats and "others whom it may concern":

"Referring to the provisions of section 4474, Revised Statutes, authorizing the Secretary of the Treasury to grant permissions to the owners of any steam vessel to use petroleum or other mineral oils or substances in the production of motive power, your attention is called to the fact that such authority is qualified by the requirement that—

"No such permission shall be granted, unless upon the certificate of the supervising inspector of steamboats for the district wherein such vessel is registered, and other satisfactory proof that the use of the same is safe and efficient."

"In view of the recent explosion of a fuel-oil tank on a steamer lying at the port of San Francisco, Cal., in which a number of lives were lost, it is deemed advisable by the department to instruct you to use extra precautions before certifying to the department, to carefully examine personally the oil-burning plants of steamers applying for permission to use petroleum as fuel and not depend entirely upon the blue prints usually accompanying the supervising inspector's certificate of safety in the method of using petroleum as fuel.

"The law requires 'other satisfactory proof' than the certificate of the supervising inspector as to the safety and efficiency of 'any oils or substances in the production of motive power' before permission to use the same shall be granted.

"Every certificate to the department should include the signatures of two responsible persons known to the experts in the installation of oil-burning plants on steamers on blank form as follows:

"Application for permission to use petroleum.

"The honorable, the Secretary of the Treasury, Washington, D. C.

"Sir: I respectfully request permission to use petroleum as fuel in connection with a ———, No. ———, in my steamer ——— of ———.

"She is ——— gross tons measurement, ——— long, ——— beam, and ——— depth of hold, and will be used for ——— only, in the waters of ——— subject to the approval of the local in-

spectors in whose district she may be used.

"Blue print showing location of oil tanks is inclosed herewith.

"The undersigned, experts in the installation of fuel-oil plants on steam vessels, do hereby certify that, in our opinion, the method of burning petroleum oil, location of fuel tanks or burners, method of ventilation, piping and furnace arrangements are safe and efficient for the purpose intended.

"Address: ———.

"Address: ———.

"The undersigned, having made a personal examination of the above-named steamer and found that the arrangement for burning petroleum as fuel is exactly as described in blue print inclosed, do hereby certify that, in my opinion, the arrangements are safe and efficient for the purpose.

"Supervising Inspector, ——— District. ———, 190—.

"Copies of the above form will be furnished as soon as printed.

"Supervising inspectors will inform applicants for oil-burning permits for steamers distant from the home port that the mileage expenses of the officer making the examination of their steamers will have to be paid for by them.

"Leslie M. Shaw, Secretary."

### OILY DELUGE.

#### Standard Tank Bursts at Redondo, California.

Twenty-nine thousand barrels of oil rushed upon the beach at Redondo, Los Angeles county, in the space of ten minutes last Friday morning, covering the street and the sands and flooding many cottages on the Beach row.

It was a veritable deluge, and it poured from the large tank of the Standard Oil company, which burst, letting its entire contents go to waste, carrying destruction in its dirty, greasy spread.

A piece of angle iron between the first sheet and the bottom of the tank broke out, making an opening about four feet in extent, through which the valuable fluid shot in a shining, slippery stream, until the last barrelful had rolled out. The company's loss is said to be very nearly, if not quite, \$10,000.

In a dozen or more of the houses on Beach row there was six inches of oil, damaging them greatly, and practically ruining much furniture. It is impossible to give an estimate of the property loss sustained by citizens, but it undoubtedly runs pretty well up in the thousands, and a joint lawsuit for a large amount is already contemplated.

The unusual disaster occurred at an old tank. It was put up here about eighteen months ago, and is said to have been rebuilt twice before that.

The company has a force of men guarding the affected district against fire, which would sweep everything before it should it break out.

#### Oil versus Ducks.

Hundreds of wild ducks, made perfectly helpless by a coating of petroleum on their wing feathers, are being slaughtered every day by hunters who are without the instincts of a true sportsman, says the Oakland Tribune.

Guns are not used to slay the fowl, but clubs are brought into play, and with these implements men and boys are daily marching up and down the

shores of the bay and estuary and most wantonly slaying the incapacitated ducks.

The large manufacturing concerns on the bay shore are blamed by the sportsmen, for they claim that the crude oil and scum which comes from the factories is fast exterminating the ducks, and they further claim that the black bass are rapidly leaving. Added to this it is claimed that when the tide recedes the oil sinks down in the mud and totally spoils the soft shell crab.

The sportsmen about the bay are up in arms about the matter. Indignation meetings have been held, letters have been written to the oil refineries, but the crude oil still continues to spread death to the ducks and fish.

The oil acts as would mucilage to the feathers of the ducks and as a result those that are not immediately put out of their misery by heartless hunters armed with clubs, slowly die, being able only to swim about in the oily substance in which they have unfortunately floundered.

### MAKING GAS FROM OIL.

#### Eureka Lighting Company Starts New Plant.

The new plant of the Eureka Lighting Company, by means of which oil is to be used instead of coal for the manufacture of gas, was completed January 22d, and oil was substituted for coal formerly in use.

The new machines, three in number, are home products, the entire mechanism having been planned by Superintendent Petch, while the machinery was built and set up by Langford Brothers, of Eureka. The machines consist of a superheater and a genera-

tor. Each of the great cylinders are filled with brick, into which the crude oil is forced and after being heated is generated into gas. The gas is finally passed into a scrubber and condenser, a large cylinder in which it is purified and from whence it passes into the mains, which supply the gas to the consumer.

The superheater and generator are each fifty inches in diameter and fourteen feet high. The condenser is seventy-two inches in diameter and is also fourteen feet high.

### Route for Pipe-Line.

A party of surveyors in the employ of the Associated Oil company has been at work near Bakersfield and it is said they are working on a route for a pipe-line to extend from the company's properties at Kern river to Port Harford, via Sunset and McKittrick. The company has at present no outlet except by rail, and unless a route to tide-water can be secured will be at disadvantage in competing with the Standard, with its pipe-line to Point Richmond.

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## A MODEL CIRCULAR.

**Bulletin Just Issued By the Mt. Hamilton  
Land and Oil Co.**

**It Sets Forth in Unexaggerated Style Noteworthy  
and Encouraging Facts About the Oil Industry  
and the Coalinga Oil Field in Fresno County.**

The Mt. Hamilton Land & Oil company has just issued a bulletin which in its style and contents is a model for oil companies who desire to set forth in terse and vigorous language facts about the growth of the oil industry in California as related to the welfare of their own particular companies.

This circular is herewith reprinted in full not only as a model for other companies but on account of the facts and information it contains.

The demand for oil in California is increasing with wonderful rapidity. In its New Year's edition of 1902 the Pacific Oil Reporter, the recognized authority on California oil matters, said: "In 1900 we consumed 4,329,950 barrels of oil, in 1901 we increased this consumption to 8,742,500 barrels; in 1902 we have increased this consumption to 13,692,514 barrels. The year 1903 will see the consumption of oil in California exceed 20,000,000 barrels." Few people realize how the consumption of oil is increasing. Before the close of 1903 the Southern Pacific and Santa Fe railroads will be consuming oil at the rate of nearly 8,000,000 barrels a year. They are changing their locomotives from coal to oil burners as rapidly as possible.

One year ago there were not ten steamers burning oil for fuel on the Pacific coast; to-day there are 111, with a total tonnage of 88,981. Before January 1, 1914, the number of oil-burning steamers will be increased to over two hundred.

It is impossible to state just how many industrial and manufacturing concerns there are in California and the neighboring States that have changed from the use of coal for fuel to oil. It is sufficient to say that in all the large cities of California the main consumers of fuel either have made the change from coal to oil entirely or in part, or have such a change in contemplation. The same is true of the large cities of the North, such as Portland, Seattle, Hurka, and, in these cities, the change is more surprising, in view of the fact that coal, being so near the base of supplies, is very cheap in price.

Nearly all the gas plants of the Pacific Coast now use oil for gas making, the result being better gas, and less cost in its manufacture.

Oil is now used in thousands of residences for cooking and heating purposes. By its use tens of thousands of acres of land are now being irrigated on the Pacific Coast by pumping water from wells by means of engines where oil or its distillates are used for fuel. Hundreds of miles of road in this State are hard, free from dust in summer and mud in winter, by being sprinkled with oil. Travel across the desert on the railways is now made pleasurable and free from dust on account of the oil with which the roads are sprinkled.

Enough has been said to explain the reason why the demand for oil is increasing so rapidly, and why we expect that in two years' time the consumption of oil will reach annually the 40,000,000 barrel mark.

Mention should be made of the fact that there are now thirty-two refineries in California, which have a total still capacity of 31,575 barrels; in addition to this list should be added the great refinery of the Standard Oil Company, now rapidly approaching completion, and which will have a capacity of treating 10,000 barrels of crude oil daily. This refinery will be in full operation as soon as the great pipe-line, 278 miles long, running from Bakersfield to the Bay at Point Richmond, is completed. This pipe-line is already laid with the exception of about twenty miles, and it will be completed and oil running through it by the 1st of March. This line will have a minimum of 10,000 barrels of crude oil daily, and 20,000 barrels a day can be sent through it.

While the refineries now in practical operation number but thirty-two, at least ten more refineries, most of them of large capacity, are being built.

These refineries manufacture illuminants, naphthas and other products,

and some of them are confined mainly to the manufacture of asphalt, distillates and lubricating oils.

The asphalt now secured from California crude oil is now greatly in demand in the East for paving purposes, as it has been found to be equal to the Trinidad product and can be had down in the East probably at a much less price than can be sold the Trinidad product. It is estimated that at least 200,000 barrels of crude oil daily will soon be used in the manufacture of California asphalt, as the demand for this product is increasing wonderfully.

The main demand, however in California now is for refining oil from which illuminants, naphthas and other similar products can be made. The fields which supply these refining oils, are Fullerton, Ventura and Coalinga.

Up to the present time, the market for Coalinga oil has been confined to the ability of the Southern Pacific Railroad to furnish tank cars for transportation. There are now in the Coalinga Field eighty-three producing wells, many of them having a capacity of over 400 barrels a day. Calling the average capacity of these eighty-three wells, 100 barrels each, these wells can produce yearly, 3,000,000 barrels. Yet on account of lack of transportation, these wells were not producing in 1902 but 591,544 barrels and this amount came from only nineteen wells, the others being capped and their product not in use simply on account of lack of transportation. The price however, for Coalinga oil which could be marketed, was in the neighborhood of \$1.00 per barrel, this high price being received on account of its superior refining qualities.

Within a very few months the question of transportation in the Coalinga field will assume an entirely different phase. The Standard Oil Company is already constructing a storage system. A number of tanks will be erected, each tank having a capacity of 55,000 barrels each, and these will be erected in two groups, one in the northeastern portion of the field near the wells of the Coalinga Oil Fields, Limited Company, and another in the southwestern portion of the field near the wells of the Esperanza Oil Company. A pipe-line will immediately be constructed from these storage tanks to the pipe-line now approaching completion from Bakersfield to the bay. This pipe-line will be eighteen miles in length and will solve the question of transportation of oil from the Coalinga Field.

Another pipe-line from this field westerly to the ocean in Santa Cruz County is soon to be laid by the Union Oil Company, which up to this time has been the leading factor in the purchase of Coalinga oil. This line will be over 100 miles in length and will have a capacity of over 7,000 barrels a day. The surveys for the line have already been made and the line will be constructed in order to supply the Union Oil company with refining oil for its refineries and with suitable fuel oil which it must have in great abundance in order to supply the rapidly increasing demand for this product.

The object of the foregoing is twofold: First, to show the increasing demand and consumption of oil in California; second, to show that the Coalinga Field will soon be producing vast quantities of high grade oil, and that adequate transportation facilities will be furnished to handle it.

The Mt. Hamilton Land & Oil Company owns 560 acres of proven oil land in Coalinga District. This land is near the wells of the Esperanza Oil Company and so located in the line of the proven oil belt that it is absolutely certain that a big flow of oil will be struck on the land of the Company when the drill reaches a certain depth. One well is now being drilled and has reached a depth of over 400 feet. The Company expects to reach the oil sand at a depth of from 800 to 1,000 feet. When one well is completed, other wells will be drilled as rapidly as possible and the Company will soon be in a position to furnish a superior quality of oil to the rapidly increasing market. The land on which these wells will be drilled, is located right at the terminus of the Southern Pacific Railway and every facility is thus offered both for pipe-line and railway transportation.

Within a few months the wells of the Mt. Hamilton Land & Oil Company will be producing oil in sufficient quantities to enable it to pay dividends similar to those which are being paid by other producing companies in the Coalinga Field which even now for lack of transportation are not able to transport but a fraction of their possible output. Many of these companies are paying large dividends from land not exceeding forty acres in extent. The outlook for the Mt. Hamilton Land & Oil Company is exceedingly favorable. The officers of the Company are well known business men of San Jose and have invested their own money liberally in the stock of this Company. They do not ask any one to invest money in an enterprise in which they have not proven their own confidence by investing their own capital. The Company is capitalized for \$1,000,000. There are 1,000,000 shares of a par value of \$1.00 each. In order to obtain funds to complete the development work, erect storage tanks, local pipe-lines, etc., a limited number of shares of stock have been offered at 10 cents a share, and will continue thus for a limited period. As soon as oil is struck in the first well now near completion, the price of the stock will advance to par or better.

The officers of the Company invite the closest attention to its affairs, management, value of its holdings, prospects of striking oil etc. The more thorough such an examination, the better pleased will be the officers of the Company.

For further information, address, Mt. Hamilton Oil & Land Company, office, 6, 7, 8, and 9 Rea Building, San Jose, California.

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## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY.....FEBRUARY 7, 1903

A suit has been commenced in Alameda county against a seller of oil stock on the ground that he sold the stock through fraudulent misrepresentations.

Whether there is ground for this particular suit is not material. The fact remains that a great deal of stock has been sold here and in the East by fraud. Companies have been organized simply to sell stock which had little or no value. Much stock has been sold as treasury stock which was simply promoters' stock, and has been sold with the understanding that the money obtained was to go into development work. It simply went into the pockets of the promoters.

As a rule, people who have found themselves swindled in this way have swallowed the dose and said nothing. They went into a "get rich quick scheme," and lost their money. They do not want to start a lawsuit and thus advertise to the world that they gambled and lost.

Others, however, take their medicine with very bad grace and make a big fuss.

We wish there were more such. There ought to be at least a dozen men arrested who have made considerable money from the sale of California oil stocks through lies and misrepresentation.

This paper is always glad to furnish the facts concerning such sharpers when it can get them and back up the statements with proof. The trouble is that those who howl about "robbery" are seldom willing to corroborate their charges with facts.

Give us facts, clear and cold, with names and dates, and we will do the rest.

## ALONG THE LODGE.

## Unusual Activity Shown at the California Quartz Mines.

Unprecedented activity is being shown at the mines among the mother lode of California. The present indications are that 1903 will be a banner year for the production of the precious metal. At the Malones mine, on the banks of the Stanislaus river, sixty stamps are running day and night, and the batteries have been received for fifty more, which will be put in at once. The App Consolidated mine has resumed operations and now has over 100 miners at work.

What was formerly known as the Norwegian Group at Tuttle-town, and which is now owned by the Norwegian Consolidated Mining company, has been reopened under the direction of Mr. G. A. Whiteford, a mining engineer of sixteen years' experience, who has an enviable reputation as a conservative and capable mining man. During the past two weeks Mr. Whiteford has been stoping ore on the fifty-foot level. Practically none of the ore in this locality had previously been disturbed, and the results have been highly satisfactory, milling ore of an exceptional high grade being found. The equipment of the company is complete, but it is the intention to materially increase the facilities for handling low-grade ore at the mine. There are at the present time about 200 tons of twelve-dollar ore on the dump waiting to be reduced and additional stamps have been ordered. The present indications are that the Norwegian company will join the long list of animated producers along the lode.

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## MIDLAND-PACIFIC.

## Work of Grading the Road Has Already Commenced.

Mr. I. E. Blake is authority for the statement that the contract for grading thirty miles of the Midland-Pacific Railroad from Sunset to the sea at Port Harford has been let to the contracting firm of Waggy & Co. The work has commenced on the portion of the line between Sunset and Santa Maria Canyon. Other contractors have their engineers in the field, and will bid for the construction of the remaining portion of the road.

Considerable curiosity is manifested among financiers as to where the money will come from to pay the contractors when their work is finished.

Mr. Blake says the bonds of the road to the amount of \$2,000,000 have been purchased by Kelley, Endicott & Co of Boston, which firm showed Mr. Blake they had money enough to buy them outright if necessary spot cash. They agreed, however, to put up the money for construction work when it was wanted.

Mr. Blake has some previous experience in building and financing railroads, and knows that sometimes it is pretty hard to scare up money to pay the contractors, sometimes, in fact, it has been impossible.

Mr. Kelley was until a short time ago a junior clerk with the firm of A. H. Rollins & Co. of Boston, and is not credited by the rating firms with much capital. Mr. Endicott is an Englishman and confesses to \$30,000 capital.

The firm is at present advertising for contractors for various stock schemes in the Boston papers.

Mr. Blake may be all right in his belief that Kelley, Endicott & Co. somehow and in some way will scare up the money to build the Midland-Pacific, which is greatly needed, and which must be built, if not by Blake & Co., by some one or some corporation which can command capital. If Blake & Co., in connection with Kelley, Endicott & Co., between them, cannot scare up the funds to pay the graders, bridge-builders, rail manufacturers, car builders, tank constructors, locomotive works, shipbuilding firms, etc., etc., in contemplation, let them throw up the cards and allow some one else to get in the game who knows how to play and has the stuff.

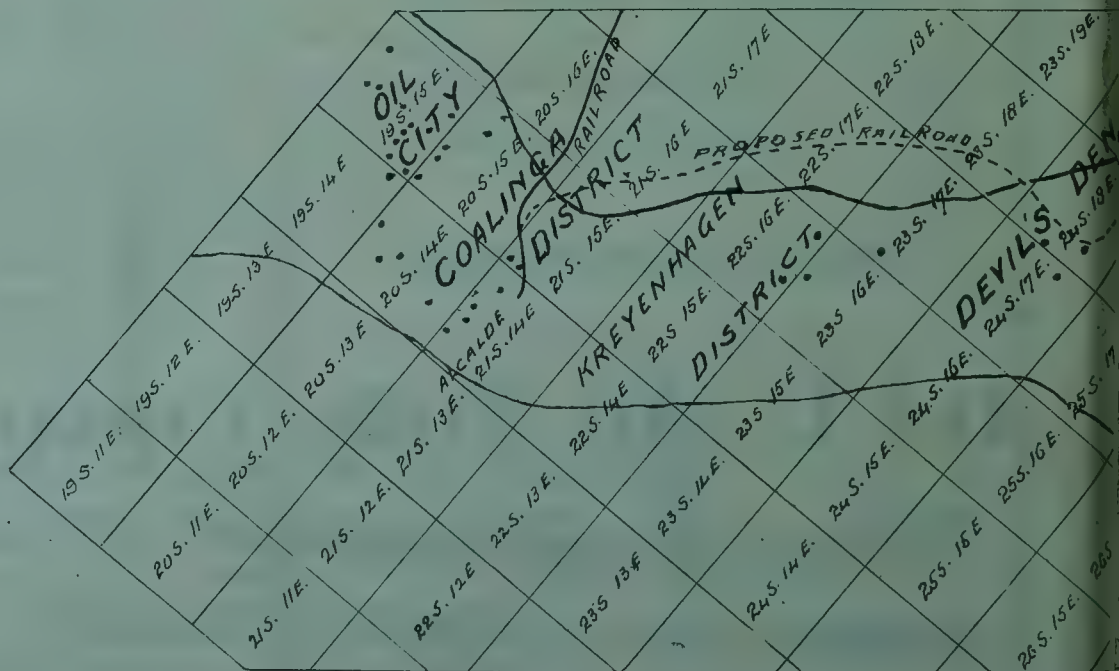
## SOUTHERN OIL FIELDS.

## Greater Activity Prevails Than Ever Before.

The Los Angeles Herald, speaking of the oil fields in Southern California says:

With the opening of the new year oil producing companies are perfecting plans for the resumption of work on a more elaborate scale than has been the vogue since the prices of all grades of the product slumped and the oil industry flattened out. Actual work on an extensive scale, however, may not be expected until the heavy rains are over, but large orders for materials are placed and the spring months will witness a revival of the old-time activity. South of the Tehachapi the Fullerton field has remained the most active, but here, too, extended work is contemplated and some big producing wells are due to be brought into production in the very near future.

The reason for this impending activity is not far to seek. The oil supply is approximately even, with the demand and the market is widening rapidly all of the time, while the supply has for some time past shown little increase. In saying this, however, it is to be remembered that such producers as are located in the Midway and part of the Sunset districts must be eliminated from consideration, owing to the absence of transportation facilities. And with the condition as at present existing prices of necessity continue to scale upward. In the local field what with the wells that are rapidly closing down owing to exhaustion, others that require to be deepened before they can be rehabilitated, and the small amount of new work being done in the field the production has not been meeting the demand. Whittier has been drawn upon to make up the local deficit, and still the demand increases. As at present determined upon many of the companies operating in the Los Angeles field intend to start a number of new wells in March, at which time the indications are that activity will prevail in all of the southern fields. By that time it is stated that several of the new companies that purchased large tracts of territory in the vicinity of the Los Alamos field will begin work and the extension of that prolific field is one of the interesting developments that will be watched with interest by operators and capitalists alike.



The above map shows the great oil belt running from Sunset District, in the southeast to Coalinga field on the northwest. This belt extends through the counties of Kern, Kings and San Bernardino and includes the oil field of Sunset, Midway, McKittrick, Temblor, Devil's Den, Kreyenhagen and Coalinga. The oil belt is included in the two lines running through the map. The limits of the



## PACIFIC COAST OIL NEWS.

Recent Developments Which Have Made Oil One of the  
Greatest Industries in the Far West.

## COLUSA.

W. E. Youle has secured for himself and other large tracts of land in the Bear and Sulphur Creek districts, and as soon as the roads will permit expects to put two rigs at work. He thinks a well drilled close to the intercroppings and seepages than the wells already drilled will result satisfactorily. The deepest well in Colusa is the Williams Home well, located six miles across the outcrops. This well is 2,700 feet. Mr. Youle intends to drill nearer the outcropping and develop from the positive indications and work away from them.

## FRESNO.

The Echo Oil company, managed by Henry Greve of Priest valley, who made the original discovery of oil on Lewis creek, has drilled one well several hundred feet deep on the divide between Warthen and Priest valley and struck oil—the highest grade known—as testified to by an Eastern expert. This well has been capped and the rig removed a few yards, where another well is being drilled. The latter is now down 1,200 feet and indications point to unlimited oil.

The Mt. Hamilton Land & Oil Company is now completing its first well in the Coalinga district of Fresno County. The well is located on the company's land at Alcalde Station, where the company has 560 acres. The well is now down about 500 feet and work is progressing rapidly. The well is located on the direct line of the strike, the nearest producing wells being the two wells of the Esperanza Oil Company. The Mt. Hamilton is using every endeavor to complete its first well as soon as possible and when that is completed will drill other wells in rapid succession. Being located at the railroad terminal the company has every transportation facility and suffers no delay in its shipments.

## KERN.

The People's Oil Company, which has drilled at Kramer, on the desert, has found no oil, and has given up trying.

The well of the Gilt Edge company on 7, 11 23, now down 1,500 feet will be drilled to a depth of 1,700 feet unless oil is struck at less depth.

The New York-Pacific company is preparing to drill in the San Emidio country, on the Los Lobos ranch, seven miles southeast of Sunset. Material is now on the grounds. Oil indications abound, but the territory has never been tested.

W. J. B. Lee and other Fresno and Bakersfield capitalists are at Sunset negotiating for the purchase of the Golden Gate property east of the California Fortune, whose huge reservoirs, filled with oil, and flowing wells, give silent evidence of the value of land in Section 34.

The Los Angeles Times says that the Potomac, a company operating in the Kern River field, has disposed of its product for 40 cents per barrel in the field. It states that the Southwestern Refining company is the purchaser and announces that the contract is to hold good for a period of years.

Last week at McKittrick the Alta Oil company, on the southwest quarter of section 11, 30-21—a tract just north of the San Francisco-McKittrick property struck oil. The sand, tapped at 710 feet, is very rich and promise to make one of the best wells on the north side. The drillers are confident of completing the well with the 7% casing.

The California Consolidated Oil Fields company, the gigantic corporation being organized to operate in Sunset and Midway fields will begin work at once on its pipe-line that will convey oil from all parts of these fields to the tanks at the terminus of the Sunset railroad for shipment. Walter E. Dowlan, a prominent civil engineer of London and Paris, arrived in Bakersfield this week and

will have charge of the work. The starting of work so promptly shows that the new corporation means business and is going to carry its plans into practical operation at once.

The Jewett & Modgett Water company, anticipating the active development of the Midway field, are extending their water system into that field and are erecting a large storage tank on the line between section 16, 12-23 and 31, 12-24, to which they are extending a three-inch main. They are going to run laterals from the main to various parts of the field. The point above designated is the highest point in that part of the country and hence water can be piped from there at pleasure to any portion of the field. The lack of water has been a drawback with the Midway field.

Last week Tuesday, says the Californian, a heavy wind storm struck the McKittrick oil fields. The velocity of the wind must have been great, as it is reported that more than a dozen derricks were blown down and many others damaged. The buildings being mostly low, escaped the worst of the storm's force, although a number were more or less damaged. No persons are reported hurt. The building most seriously damaged is the Southern Pacific tool house, which was badly wrecked. Among the derricks blown down were five of the Southern Pacific, five of the Shamrock and four of the Dabney. The area of the storm covered several miles. At Olig, two miles from McKittrick, the terminus of the railroad branch, much damage was done and a large number of derricks were blown down. The damage done must have amounted to several thousand dollars. Reports from the outlying portions of the field are difficult to get.

## MARIN.

The Bolinas well No. 2 is now about 1,800 feet. Stormy weather has interfered with the work. A sample of valuable oil has been sent to this office from well No. 1.

## MENDOCINO.

The Point Arena well is about 1,000 feet deep. Attempts are being made to shut off the water and drive-pipe is being put down inside the casing. There has been considerable trouble in underreaming. Indications of oil abound.

## MONTEREY.

The drilling outfit of the Nonpareil Oil company has been hauled to the

lodon summit, and drilling will begin there at once.

## SAN MATEO.

Illinois Oil Bond company will not resume operations until after the rainy season. Their present well is over 700 feet in depth.

Up-to-date maps of Kern River, McKittrick, Sunset, Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50, small maps, 25 cents each.

Pilaritos Oil company has been forced to shut down a good part of the time owing to the roads being impassible and their inability to get in fuel and material.

A new company, known as the Independent Oil company, has leased land of Mr. J. E. Kerr, and will begin the drilling of one or more wells about the 1st of April.

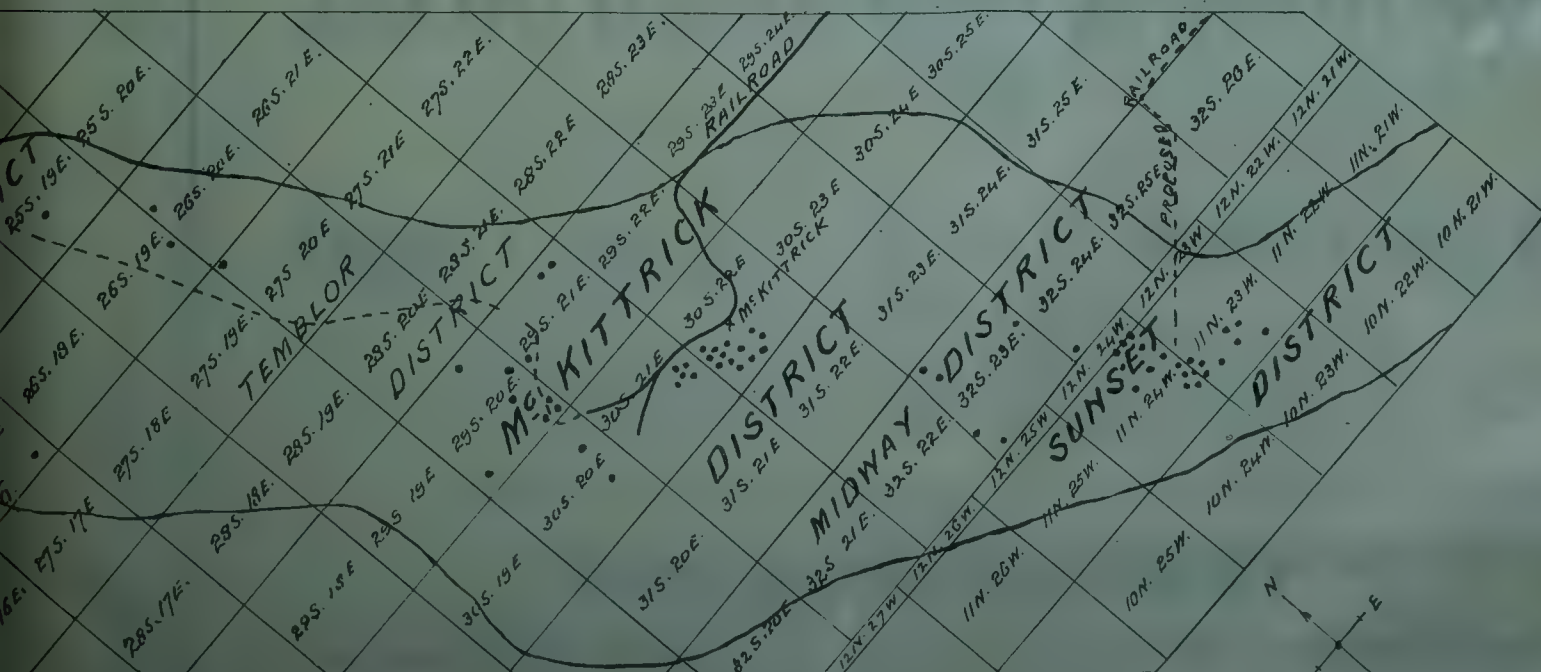
Paxon Gold Bond Oil company struck their first showing of oil at 600 feet. This company is running daylight shifts only and making from twenty to thirty feet a day.

The San Mateo County Oil company has been making fair, good progress until the recent heavy rains, and like the other companies operating in this field are seriously handicapped. They are down about 1,200 or more.

The recent strike made by the Wisconsin Gold Bond Oil company has created a great deal of interest in the immediate territory where they are drilling, and many parties are negotiating for leases. This company brought in the first flowing well ever found in San Mateo County. After the rainy season they will begin drilling another well. The company has now several hundred barrels of 48° oil tanked.

The Guiberson, Sallee & Hayne company reached a depth of 1,800 feet with 5% casing in their deep test well, and have encountered considerable oil and gas. The indications are good for a big strike. Unfortunately the machinery broke down, which will require possibly a week to put it in shape, when drilling will be resumed.

Mr. J. E. Kerr, who has charge of several companies that are drilling in the Halfmoon Bay territory, has laid off most of the drilling force until after the rainy season. Owing to the recent





heavy rains the roads are in such condition that they cannot haul in supplies and materials. Only three men will be retained upon the lease until after the rainy season, when active work will be resumed.

#### SANTA CLARA.

The Orchard Crude has gone through two strata of oil bearing sand and the well is now over 1,200 feet deep. Strata of blue clay have been encountered. Indications of much oil are favorable.

#### SANTA BARBARA.

The Graciosa well is now down about 2,500 feet and is still going down. company, operating near Los Alamos, has deepened its already good well some twenty-five feet, taking it further into the oil sand. The well now pays seventy-five barrels of twenty-eight gravity oil, which is selling at 75 cents per barrel at the well.

The Loma Oil company, a Los Angeles concern, will commence drilling for oil on the Fox ranch at Graciosa as soon as arrangements for doing so can be completed. Already there are two car-loads of lumber at the Graciosa station to be used in the construction of the derrick, etc. It is expected that work will be commenced next week.

The Western Union Oil company has just made a contract for the drilling of five new wells in its territory on the Carreaga rancho in this county. These wells are to be drilled by a Los Angeles contractor and for the first time in the history of the oil development of the county the hydraulic process is to be tried. All of the wells in existence here have been drilled by other methods.

On the Carreaga wells, No. 14 and No. 15, have been brought in recently and are paying 200 barrels per day. They will be kept to that mark for a time and then fall to the normal of about 125 barrels per day. Well No. 13 is being

made a test hole. It is now something over 1,800 feet, and may be run down to 3,000 feet. The owners propose to see, if possible, what is under this territory.

Within the past month the Pinal Oil WYOMING.

The Bettys Oil company have their machinery in place and will commence drilling the first of next week.

Two to four feet of snow now covers the Uinta oil fields, in consequence of which development work is practically at a standstill. Much rejoicing is shown, however, as it insures a good water supply for the coming season.

A quarter of section 18, township 16, range 120 was recently sold to a California syndicate for \$6,000. Many other good sales have been made the past two weeks. There is a good demand for Uinta oil land and a good price is commanded by those who care to part with them.

The Atlantic & Pacific Oil Co. have placed an order with the Evanston Lumber company to furnish five sets of oil rig timbers to be furnished at once. This company already have one big producer in the Uinta fields and are also drilling at one other point near by. They intend placing a large number of rigs on their possessions during the coming spring.

Mr. J. J. Hardin, general manager of the Jager Oil company, is expected in Evanston Friday. Mr. Hardin while here will perfect his plans for the coming season. This company who already have a producing well will place at least twelve more rigs in the field as soon as they can be gotten into the ground. Mr. J. H. Price will return from California about the 1st of March to resume his duties as field manager.

The Michigan Wyoming Oil Co. will place two more rigs on their land the coming spring, one near Shell hollow,

the other at Red Canon a few miles north of Evanston. Dr. J. W. Riecke, their general manager has unbounded faith in the Uinta fields. This company are now drilling on section 26 about fourteen miles north of Evanston under the able management of Mr. A. A. Perkins, who has had over thirty years' experience in the Pennsylvania and California fields.

The Uinta oil fields are to have two good machine shops and a warehouse in the early spring. The Oil Well Supply company are negotiating for the building known as the "old flour mill" a substantial stone building for this purpose. Other buildings will be constructed in connection with this and all kinds of drilling machinery will be kept in stock while repairing can be done by those familiar with that class of work. Crane company are already in the field with a warehouse which will be enlarged in the near future.

#### Free Right-of-Way Law.

An oil operator in the Kern River district, who has been having some trouble with rights of way for a short pipe-line, strongly urges a law which, as in Pennsylvania, gives to companies free rights of way for pipe-lines. "It is an important matter in the development of the field," said he, "and it is not in the interest of the business that such work can be impeded by any landholder who chooses to place obstacles in the way. Free pipe-line legislation is needed and needed badly."—Californian.

Standard Oil stock advanced from 645 to 750 recently with but very slight reactions until the recent decline, and is now quoted at 735. The advance has been based upon the supposedly large increases in profits by reason of the advance in the price of refined oil.

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This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work.

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#### Pacific States Mining and Investment Co.,

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San Francisco, Cal.

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By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

### ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



### Cost of Oiling Streets.

The following is the plan adopted at Fresno for oiling streets

In preparing a street for oiling it is first plowed to the depth of 10 inches, an eight or ten-horse team being required to do the work. It is then thoroughly pulverized with a spading harrow and saturated with oil, about 35 barrels being used per block. Again the harrow is utilized and the oil thoroughly worked into the loose soil, after which 35 more barrels of oil are added. Then the thoroughfare is rolled by the aid of a machine specially adapted to the work. As soon as this process is completed traffic may be resumed without injury to the street, no matter how heavy the loads transported over it. The cost of preparing a street for oil is estimated at about \$20 per block, while the oiling itself costs about \$25 per block. The Fresno authorities claim that in no instance has the expense exceeded \$50 per block, and the average is considerably less. At first a tamping machine was used for finishing, but the roller process does just as well and is less expensive, hence they are using that machine exclusively now. A tamping machine such as was used at Fresno could be leased for fourteen years for \$700 or bought outright for \$1000.

### The Pipe-Line.

It is expected that the pipe-line from Bakersfield to the bay will be completed by March 1st. Several days ago the 20,000 barrel equalizing tank of the pipe-line system was put in position at the pumping station at Corcoran Junction. There is to be one of these tanks at each of the several pumping stations and they are so connected with the line so that if the pump at one station pumps faster or slower than the next one below or above it the oil will either flow into the tank or out of it, according to the manner in which the pumps are working, and thus equalize the flow of oil through the line.

### Oil Man Sued.

A suit has been filed in Alameda County before Justice Edgar by George Bowers against Thomas Gilbert for \$250. Bowers alleges that the money was obtained from him through artifice, fraud and misrepresentation. He claims that Gilbert sold him \$250 worth of stock in the Tidewater Oil Syndicate by showing him oil from other wells and telling him that the Tidewater Syndicate was operating its own wells, a thing the plaintiff alleges was not true.

### A Rockefeller Story.

Franklin Breed, who died in Painesville, O., last month at the age of 80 years, was one of the pioneers in the development of oil lands around Titusville, Pa. Mr. Breed delighted to tell in his old age how he introduced John D. Rockefeller to the oil business. His story as related in the Cleveland Plaindealer is as follows:

"More hardships than a horseback ride in the snow and mud of December were in store for Mr. Rockefeller on his first eventful day in the oil fields. We arrived at the well, but to get to the shanties where the workmen made their headquarters it was necessary to cross a bayou of some five or six feet in width and probably four feet deep. This bayou contained sediment which the oil men took from the bottom of the tanks. This, with the mud in the bayou, resembled tar. Spanning the bayou was a six-inch log and this offered the only means of getting across.

I was used to crossing it, but Rockefeller declared he could not walk the log. He determined to try, however, and I was about to extend my hand to him from the opposite side when he slipped off and fell straddle of the log. He had on a new suit of clothes of fine quality and a light overcoat of expensive pattern. These clothes were nearly ruined by his sudden plunge into the bayou. In this sorry plight he looked up at me with a smile and said 'Well, Breed, you have got me into the oil business head and ears.' It took no little time to clean his clothes sufficiently for us to mount our horses and ride back to Titusville. I well remember how I worked with a barrel stave scraping the tar off those trousers.

"On reaching Titusville he bought a new suit of clothes before going on to Cleveland. Before leaving he thanked me very much for having taken such interest in bringing him to the oil fields and seemed delighted with the future of the oil territory. When he returned to Cleveland he ordered his first car of oil from my well. From that time on Mr. Rockefeller rose rapidly to the great success he has attained."

### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 24, 1903, which stockholders' meeting will be held on Monday, the 17th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (\$10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, to the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors,  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

### APPLICATION FOR CHANGE OF NAME.

In the Superior Court of the City and County of San Francisco, State of California, No. 94083, Department No. 3.  
In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.  
To the Honorable, the Superior Court of the State of California in and for the City and County of San Francisco:  
The above named Sinaloa Mining Company, a corporation, petitioner named herein, applies to the said Superior Court for an order changing the name Sinaloa Mining Company to Los Tecotes Gold Mining Company, and in that behalf aver and set out:

I. That the said Sinaloa Mining Company is a corporation duly incorporated and organized and existing under and by virtue of the laws of the State of California; that the date of the formation of your said petitioner was the 26th day of May, 1885, and the said Sinaloa Mining Company is the present name of your petitioner, and the name to which it is proposed to change the said name of the Sinaloa Mining Company is the Los Tecotes Gold Mining Company; that the principal business of the Sinaloa Mining Company is transacted in the City and County of San Francisco, State of California, and its Articles of Incorporation are duly filed in the office of the County Clerk of said City and County of San Francisco.

II. That the capital stock of said Sinaloa Mining Company consists of Ten Million Dollars (\$10,000,000), divided into One Hundred Thousand Shares (100,000) of the par value of One Hundred Dollars (\$100.00) each and of which capital stock twenty-five thousand (25,000) shares have been issued and fully paid up.

III. That the directors of said Sinaloa Mining Company are Geo. S. Montgomery, A. W. Dennett, S. R. Break, M. E. Randolph and R. H. Cross, and at a meeting of the said Board of Directors, duly and regularly held on the 2nd day of February, 1903, at the place of business of the said Sinaloa Mining Company, in the City and County of San Francisco, the said directors duly and regularly resolved and authorized the President and Secretary of the said Sinaloa Mining Company to file with the Clerk of the Superior Court of the City and County of San Francisco, State of California, this petition and application to change the name of said Sinaloa Mining Company to that of the Los Tecotes Gold Mining Company, the said petition to be signed by a majority of the said Board of Directors.

IV. That the members of the Board of Directors of said Sinaloa Mining Company are owners of a large number of shares of the capital stock of said corporation, and together with nearly all, if not all, the stockholders of the said Sinaloa Mining Company, earnestly desire that its name be changed

to that of the Los Tecotes Gold Mining Company, for the reasons hereinafter set forth, to-wit:

That the name and name of said Sinaloa Mining Company is situated in the State of Sinaloa, United States of Mexico, and is most chiefly of the mining property known as Los Tecotes Mine, which has been worked for centuries and known to the aborigines as Los Tecotes Mine, that the said Sinaloa Mining Company is known as and commonly called in the State of Sinaloa Los Tecotes Mining Company.

That the name of Sinaloa Mining Company is too general and the property of the company is confused with that of other companies bearing similar names. That for the above and other reasons it would be for the best interests of said Sinaloa Mining Company and its business would be greatly improved if the change of name herein applied for be effected.

V. That there is no association or corporation in this State or elsewhere using the name of Los Tecotes Gold Mining Company to the best of petitioner's information or belief. Wherefore your petitioner prays that the name of said corporation, to-wit: Sinaloa Mining Company, be changed to Los Tecotes Gold Mining Company, and that a time be fixed as provided by law for the hearing of this application.

SINALOA MINING COMPANY,  
(A Corporation)  
By GEO. S. MONTGOMERY,  
(Seal) President.  
S. R. BREAK,  
Secretary.  
GEO. S. MONTGOMERY,  
A. W. DENNETT,  
M. E. RANDOLPH,  
S. R. BREAK,  
R. H. CROSS,  
Constituting a majority of the Board of Directors of the Sinaloa Mining Company, State of California, City and County of San Francisco—ss.  
S. R. Break first being duly sworn deposes and says:  
That he is an officer, to-wit, the Secretary

of the Sinaloa Mining Company, a corporation, petitioner herein, that he has read the foregoing petition and application and knows the contents thereof, that the same is true, and that he knows the contents of the matters which are therein stated in his information and belief, and that as to those matters that he believes it to be true.

S. R. BREAK

Sul. sworn and sworn to before me this and day of February, 1903.

(Seal) CLAY P. GOODING,

Notary Public in and for the City and County of San Francisco, State of California.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk; by H. H. St. Legor, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco.

In the Superior Court of the City and County of San Francisco, State of California, No. 94083 Dept. No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

Order directing publication of Petition or Application for change of name, etc. It is hereby ordered that the petition of the above named corporation, Sinaloa Mining Company, for the change of the corporate name to "Los Tecotes Gold Mining Company," which petition or application was filed herein on February 3rd, 1903, be heard at ten o'clock A. M. on the 9th day of March, 1903, by the said Superior Court in Department No. 3 thereof.

It is further ordered that a copy of such petition or application be published for four (4) successive weeks prior to the date of said hearing in "Pacific Oil Reporter," a newspaper printed in the City and County of San Francisco.

Dated February 3rd, 1903.

FRANK J. MURASKY,

Presiding Judge of the Superior Court.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk; by J. J. Greb, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco, California.

## THE COLUMBIAN OIL, ASPHALT & REFINING CO.

CARPINTERIA, SANTA BARBARA COUNTY CALIFORNIA.

Capital Stock, \$1,000,000; Par Value of Shares, 10 Cents Each; Fully Paid and Non-Assessible. \$750,000 Worth in Stock in the Treasury.

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F. M. PARCELLS, Attorney, Oakland, California.  
Vice-President, FRANK F. TITUS, Capitalist, Oakland, Cal.  
Treasurer, JOHN R. SCOPHAM, Oil Operator and Mining Engineer, Oakland, Cal.  
J. W. WALKER, Phoenix, Arizona.



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Write at once for reports, subscription blanks, photographs, etc., and make all remittances for stock payable to the company's fiscal agent.

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## Mt. Hamilton Land and Oil Co.

Owns oil territory in the Coalinga and Kreyenhagen Oil Districts. Is now down over 400 feet on its first well at Alcaide, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 560 acres.

Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

Office 6, 7, 8 and 9 Rea Building, = = SAN JOSE, CALA.



**New Process.**

A report has been circulated to the effect that a new process of refining crude oil had been discovered in the East which insured a reduction of 50 per cent in the cost of refining. The process is described as a continuous distillation. The description of the process as given out is "as clear as mud."

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, February 4:

CALIFORNIA STANDARD.			
4,300 at	16.		\$ 688 00
CLAIRMONT.			
1,000 at	25.		250 00
CARIBOU.			
100 at	75.		75 00
FOUR.			
3,275 at	60.		1,965 00
HOME OIL.			
500 at	3 30.		1,650 00
400 at	3 35.		1,340 00
100 at	3 30 (S 30).		330 00
50 at	3 30 (B 30).		165 00
30 at	3 40.		102 00
INDEPENDENCE.			
12,100 at	12.		1,452 00
2,000 at	12 1/2 (S 90).		240 00
6,000 at	13 (B 10).		780 00
1,000 at	13 (C).		130 00
1,000 at	13.		130 00
JUNCTION.			
500 at	18.		90 00
10,000 at	17.		1,700 00
KERN.			
50 at	5 75.		28 50
100 at	5 25.		525 00
250 at	5 50.		1,375 00
KERN RIVER OIL.			
10 at	14 50.		145 00
LION.			
2,000 at	10 (B 60).		200 00

8,000 at	09.		720 00
1,000 at	09 (B 30).		90 00
1,000 at	08.		80 00
7,100 at	10.		710 00
MONTE CRISTO.			
100 at	1 37 1/2.		137 50
100 at	1 42 1/2.		142 50
400 at	1 35.		540 00
OCCIDENTAL OIL.			
1,300 at	18.		234 00
250 at	19.		47 50
400 at	17.		68 00
OIL CITY PETROLEUM.			
1,000 at	22.		220 00
PEERLESS.			
155 at	15 00.		2,325 00
5 at	15 25.		76 25
PIEDMONT.			
1,000 at	08.		80 00
REED CRUDE.			
1,908 at	33.		629 64
SOVEREIGN.			
1,900 at	40.		760 00
500 at	40 (B 5).		200 00
100 at	41.		41 00
STERLING.			
100 at	3 00 (C).		300 00
100 at	3 00 (S 30).		300 00
100 at	3 00 (B 5).		300 00
100 at	3 05 (B 30).		305 00
200 at	2 95 (B 5).		590 00
100 at	2 90 (S 90).		290 00
100 at	2 85 (S 90).		285 00
100 at	2 85 (B 30).		285 00
200 at	2 85.		570 00
120 at	2 95.		354 00
350 at	2 90.		915 00
1,250 at	3 00.		3,750 00
2,000 at	3 05.		6,100 00
TWENTY-EIGHT.			
300 at	2 50.		750 00
150 at	2 60.		390 00
445 at	2 65.		1,179 25
645 at	2 70.		1,741 50
210 at	2 75.		577 50
100 at	2 80.		280 00
81,953 Shares		Amount	\$40,671.14
SPRING VALLEY WATER.			
80 at	85 00.		6,800 00
80 Shares		Amount	\$6,800.00

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**Hudson Gold Mining Co.**

Owens rich gold properties in Arizona;  
active work now in progress, to continue  
which stock is being sold at

**10 CENTS A SHARE**

Par Value \$1.00  
Full Paid,  
Absolutely  
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When present block has been subscribed  
price will be advanced to 20 cents per  
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**Low Capitalization** Only 60,000 Shares.

**Large Acreage** 160 acres of as good proven Oil Land as there is in the State of California, 40 acres of which is leased to the Independence Oil Company upon a royalty of 20 percent for 20 years. This land is located in the heart of the Coalinga District.

**13 Producing Wells** 28 Oil Company has 6 wells, production 1,000 bbls. per day; Independence has 7 wells, production 1,000 bbls. per day.

**Oil Contracted** For five years 25,000 bbls. per month to the Union Oil Company.

**No Debts** The Company have expended over \$50,000 in improvements, are entirely out of debt and have

**Cash in Treasury \$4,000**

**Management** Is excellent; no large salaries are paid.

This Company will pay dividends and the stock will be in demand at \$4.00 per share within a few months.

For present market price see Record of Daily Sales.

We will buy for you on open market and guarantee lowest market price.

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Office, 214 Stimson's Block, Los Angeles  
Location of Works, corner Vernon and Santa Fe Aves.  
Los Angeles  
Present Capacity 200 barrels of Crude Oil a Day  
Will soon have a Capacity of 500 barrels a Day

Manufacturers of Asphalt, Lubricants, Engine  
Distillates, Stove Distillates, Fuel Distillates,  
etc. Large Stock Always on Hand.

Prepared to furnish estimates for immediate delivery  
to any part of the United States or Canada

**The Barrett Oil Well Swivel Wrench**

For carrying and placing  
bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances  
as it is LABOR, TIME AND MONEY SAVED.  
It is only necessary to have one of these wrenches for all sized bits  
You simply change the top plates, which have different size squares  
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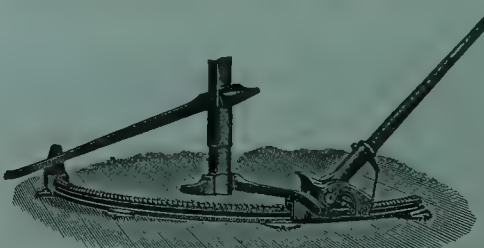
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**J. BARRETT, Allegheny, Pa.**

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Manufacturer of

Oil & Gas Well Rig Irons  
Sand Reels, Cants,  
Arms and Pins. Also  
the Original Tool  
Wrenching Jack, the  
best and cheapest on  
the market.



For prices, etc., inquire

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Francisco, Cal., Bakersfield, Cal.



### Change of Quarters.

Charles C. Moore & Co., the well-known engineers of San Francisco have recently leased for a term of years larger and better equipped offices and salesrooms in the Union Foundry Block, San Francisco, which have become necessary owing to the large increase of power, electric lighting, pumping and mining industries on this coast.

About March 1 they will occupy their new quarters on the north-east corner of Mission and First streets. Their new offices will bring together the various departments of their business which have hitherto been compelled to occupy several different buildings because of the inadequacy of their present quarters at 32 First street.

This firm is engaged in designing and constructing complete power, lighting, mining and pumping plants, and have executed some of the most important work on this coast.

They have newly established a department for the sale and construction of complete mining and smelting plants, and have recently concluded for this purpose arrangements to represent the Holthoff Machinery company, of Cudahy, Wisconsin, on this coast.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

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to CHICAGO, Daily



An Ideal train  
for those  
who seek the  
best.

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Leave Market-Street Ferry Depot.

	Daily Local	Daily Lim'td	Local Daily	Overl'd Daily
Lv.S.Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. Stockton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p	.....	11:28 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:30 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.  
8 a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

### DIVIDEND NOTICE.

**PRERLESS OIL COMPANY—ON DECK.**  
Per 1, 1902 declared a dividend No. 10, of ten (10) cents per share payable February 1, 1903. Books close January 25, 1903.  
The address of stockholder W. I. Tase is desired.  
GURDON BRADLEY, Assistant Secretary.

### CYGNET PETROLEUM CO

Capital.....\$150,000  
50,000 shares at \$3.  
Location—Fresno county.  
Directors—Chas. L. Fair, president, Elita W. Paxton, vice-president, Chas. A. Lee, treasurer, John C. McIlroy, secretary.  
Office—561 Parrott Building.  
Tel.—South 184.

### STANFORD OIL COMPANY.

Capital.....\$500,000  
Treasury stock.....\$50,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company, Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president; M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. R. J. Ensign.  
Offices: 475-76 Parrott Building, 833 Market street, San Francisco, Cal.

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School lands may be taken from 160 to 640 acres. Lands abound in all countries in State. They require no condition, as to residence on land or cultivation, and carry all minerals and deposits, only \$1.25 an acre. Easy terms. Fortunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Ranching, Timber Lands and are the safest and Cheapest Speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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If You are going East call at the

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and secure a copy of the booklet entitled "Electric Lighted, or Dollar for Dollar," descriptive of the new electric-lighted Overland Limited service. Adjustable electric reading lamps in every berth, telephone service at each terminal until hour of departure.

The New Electric-Lighted Overland Limited marks an era of advance in Railroad Equipment.

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Pass. Traffic Mgr. Gen. Pass. Agent

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Opinion on Oil Territory and Proper Location given before Drilling. Advice on Value of Stock, Oil Lands and Prospects. Prices Reasonable. . . Best of References. Standard Rigs Furnished, Fishing Tools on hand. Contract Drilling for Oil. Twenty-five Years Experience in California Fields

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## The Star Drilling Machine

Cut shows boiler mounted upon frame of machine and gas works. It is usual and advisable to have boiler mounted upon trucks separate.



Descriptive catalogue mailed free

The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2835 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

One No. 4 Machine has a record of Thirty-two 800-foot holes in one year.

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The only machines made that are absolutely without annoying springs. They are simple, powerful and efficient, easy to handle at work or on the road. Used in every State and Territory and in many foreign countries.

We also make full line of Drilling and Fishing Tools, Reamers, Sand Pumps, Spuds etc.

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# UNION OIL TOOL COMPANY

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Manufacturers of **Up-to-Date Drilling**

AND

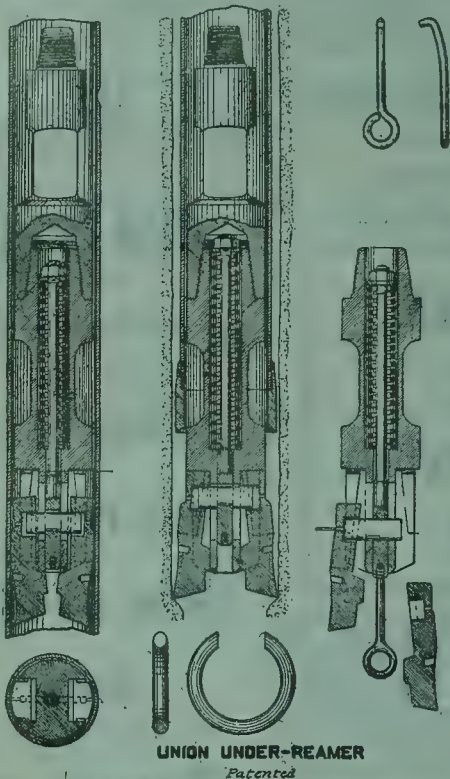
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FORGING AND MACHINE WORK

**FISHING TOOLS, BITS AND JARS A SPECIALTY**

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Patented

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Manufacturers of

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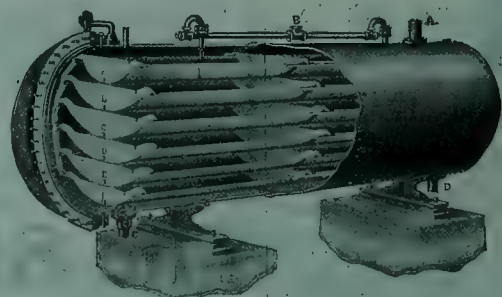
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Are guaranteed to heat Feed-Water to 210 degrees and to catch all solids liberated at that temperature. This is all due to the shape of the pans.

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ADVT. NO. 206



# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 15.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 14, 1903.

Price 10 Cents.



Goods  
Manufactured  
By the

## OIL WELL SUPPLY CO.

Of  
Pittsburgh,  
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### Drilling & Operating Oil & Gas Wells

Are known and used throughout the world, because they are  
The Best That Can Be Made.

Business Established 1861

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# 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Capitalization 500,000 Shares at \$1 par Value.

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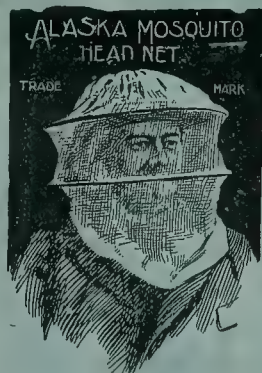
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AGENTS WANTED in All Large Cities for the Sale of Our Al Refined Asphaltum

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**A Perfect Protection Against Insect Pests**



Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

Invented for and in general use in mosquito-infested Alaska.

Folds up compactly and goes easily into the pocket.

Made of specially prepared galvanized steel wire and the finest and strongest netting.

Invaluable for hunters, campers and travelers.

Can be worn day or night without inconvenience.

### Made in Two Varieties.

- No. 1. Made of finest netting, sure protection against mosquitos. 50 cents.  
No. 2. Made of very fine, but strong, imported lace, for midges and black flies, \$1.00.

If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

**ALASKA MOSQUITO HEAD NET CO**

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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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318 Pine Street San Francisco, Cal.



# PACIFIC OIL REPORTER

VOL. 4, No. 15.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 14, 1903.

PRICE, TEN CENTS

## SMELTING IRON ORE.

### New and Successful Method by Use of Fuel Oil.

The use of oil as a fuel in smelting iron ore has been frequently suggested and tried in an experimental way, but has not so far proved a commercial success, for reasons which are readily understood. Recently attention has been called to a process devised and tested experimentally by E. Riveroll, of Los Angeles, Cal., and we give herewith drawings of his furnace, which are very clear and will be readily understood. It is only necessary to say that the ore and flux are introduced through a charging door directly under the inclined bottom of the furnace, the molten metal and slag being collected in the crucible at the lower end, from which they can be tapped off. The oil is introduced, with steam, through a number of jets placed on top of the furnace, as shown. The furnace described is 40 feet in length and two feet in the clear, inside.

Test runs have been made with this furnace, but it is not yet in use on a commercial scale. We give below the inventor's statement in his own words, showing what he claims. We must say, however, that statements of the cost of producing iron cannot be accepted at all until the furnace has been in regular use, producing pig iron, for a sufficient time to show commercial results. For the present it is given as the latest experiment in this line, open to discussion and criticism by iron makers and furnace experts.

The inventor's statement is as follows:

"It is a method for reducing iron ores by the use of crude oil as the only fuel. The great importance of this invention lies in the fact that no coke or any other auxiliary fuel is required to act as a reducing agent, or to hold up the charge.

The inventor has applied for patents in the United States, Mexico, Canada and several other countries.

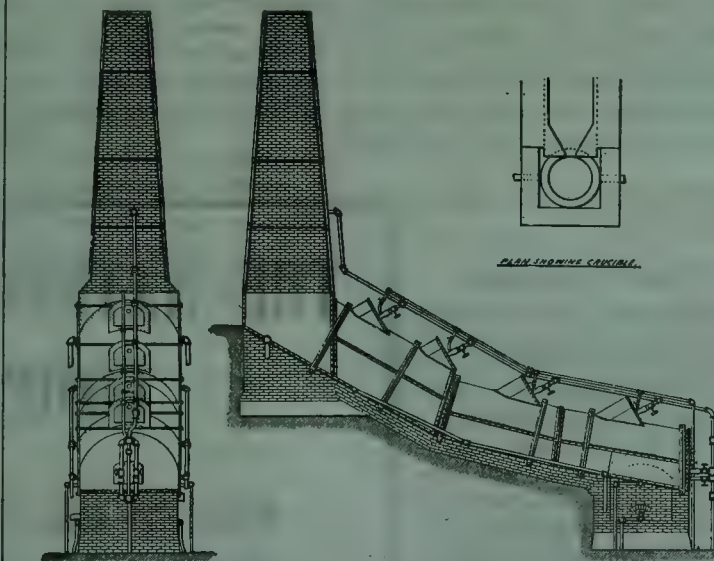
"During the past decade numerous attempts have been made throughout the West to accomplish this end. It is true, pig iron has been secured by experimenters with oil as fuel; but in no case more than 150 pounds of the charge been reduced at one time, and even then coke or charcoal had to be introduced to the extent of 10 percent or thereabouts in order to bring about the necessary chemical reaction. Heretofore all efforts to produce this important material in commercial quantities using only crude oil as fuel have

failed because of the apparently insurmountable difficulties in the way. Chief among these was the getting rid of the oxygen in the iron ores and the application of the heat directly upon the entire body of the ore to be reduced.

"This process is both simple and inexpensive, being less complicated than the cupola or upright style smelter and requiring none of the cumbersome machinery incidental to the hoisting of both ore and fuel to the top of the flue.

"On August 19th of this year Mr. Riveroll made a trial run in his fifty-ton capacity experimental smelter at Tropic, Los Angeles county, California, in the presence of Prof. Joseph Kirkham, general manager of the Pacific Art Tile works, and several other responsible parties. This run was so successful as to place the invention beyond the bounds of mere experiment. For more

than a half hour molten metal ran from the spout in a steady stream and then the furnace was shut down, as its unqualified success had been demonstrated to the entire satisfaction of all concerned. The resultant slag consisted of 45 per cent silica and alumina, 50 per cent of lime and five percent of iron and other elements



The Riveroll Blast Furnace Using Oil as Fuel.

The chief claim urged by the inventor in favor of his smelter is its economy. Taking the experimental run referred to above as the basis of this claim, the following figures taken at the time furnish sufficient data to substantiate all claims of economy: The analysis of iron ore used showed metallic iron, 56.7; silica and alumina, 13.3; sulphur, 1.4. The analysis of the limestone (flux) was: Lime, 52.5; silica, 6.3. The quality of oil was specific gravity, 20.5. Two barrels of this oil were necessary on an average to reduce one ton

more wells will be started immediately. When these are completed the company will have a production of 5,500 barrels a day. Other wells will be drilled as soon as these three are completed.

The company has four water wells which give them all the water necessary, for both machinery and domestic use.

There is storage capacity in tanks and reservoirs of 68,000 barrels. Another reservoir is being built which will have a capacity of 59,000 barrels, giving them a total storage capacity of 127,000 barrels. A fifth reservoir will be built with a capacity of 83,000 barrels.

The company has 1½ miles of private pipe-line, all of which is 7½ inches in diameter, and at its loading racks can load fifteen cars at one time. It has power enough at its pipe-line pumping station to enable the pumps to handle many thousand barrels a day.

## THE PEERLESS.

### Active Work Being Prosecuted by this Company.

Although the Peerless Oil company, operating on 160 acres in the choicest portion of the Kern River field, has already done more than any other company in the way of improvements and the installing of modern and adequate pumping and storage plants, the work of development has by no means ceased, but new improvements and additions are being constantly made.

The company now has nineteen pumping wells which are pumping 4,600 barrels a day. Three

The company has two power plants well equipped with powerful machinery. Recently two additional 70 horse-power boilers have been added to each of these power plants, making the entire horse-power 705.

The company has a large force of men employed. At present there are over thirty at work, and the company pays great attention to their material welfare.

Besides the superintendent's house six substantial cottages have been erected for the men who have families. These cottages are well built, are supplied with bathrooms, and gas from the wells is led into all the houses. This gas supplies light and fuel, and the families can use all they want. A nominal rent of \$6 a month is asked for each cottage. This covers gas and water.

The company expects to erect a clubhouse for the use of the men, and furnish it with billiard, and pool tables. A substantial office building of four rooms will soon be erected.

The company last week sent down two powerful pumps which with those in use will enable the company to handle over 10,000 barrels a day if necessary, and the company will eventually be in a position to handle 15,000 barrels a day.

The stock of the Peerless Oil company three years ago was quoted at \$1 a share. It is now worth \$15 and it is expected to be worth \$30 before January, 1904.

## Midland-Pacific.

The Santa Maria Times says that construction work on the Midland-Pacific was begun last week in Cuyama, where the contract for the first ten miles of road was let. The ground is being graded now, and when this is completed the rails will be laid as speedily as possible. A large quantity of machinery is being used, and as soon as the ground dries out sufficiently to permit hauling, more will be taken to the scene of operation.

From the Bakersfield oil fields to Fugler's point the railroad builders have nearly all of the right-of-way; in many instances the land-owners coming to them asking them to cross their lands. A great feature of the road is that for the entire distance after crossing the divide it will have a down grade. This makes it possible to transport the contracted 15,000 barrels of oil daily with one engine for the entire distance. The route has not all been determined, and some of the land owners object to giving rights of way, particularly in the Santa Maria valley.



## STORY OF AN EXPERT.

**How a Newspaper Man Blossomed Out as an Oil Expert.**

"Talking about oil experts," said a well-known oil man the other day at the Oil Exchange, "there is a man who has posed as one of the best oil experts in the State, who has received his \$100 a day right along, and who has been employed by some of the wealthiest syndicates that have operated in California, and all he knew about geology he learned in less than a month.

"It was this way. With some others I was interested in some oil property down in the Coalinga field, just as the California oil boom had started. We were drilling a well in the field, had some of the usual hard luck, and I went down to the field with a friend, also interested in the company, to see how things looked.

"At the same time a newspaperman was in the field, sent there by some Eastern newspaper agency to write up the field.

"He kept his business to himself; wasn't disposed to talk much about himself or his business; asked a good many questions; pulled an old white slouch hat over his eyes, and in general carried about him an air of mystery. It soon got noised around the field that he was an oil expert looking over the field in the interest of an Eastern syndicate that was figuring on buying up the whole field.

"One day he came to us and said he was a newspaperman whose business it was to write up the oil field. He said he was up against it, as he didn't know anything about the oil industry, couldn't use any technical terms, and wanted us to tell him about the formations.

"We told him we didn't know a blamed thing about the formation; that what we were here for was to see what progress the drillers were making on a hole our company was putting down, and that if oil was struck before our money gave out all right. If it wasn't struck before long it would be all day with us. But we didn't know a blamed thing about the geology of the country, its formations or anything else.

"Then Mr. Newspaperman wanted to know what an 'anticline' was, and said some folks had spoken about 'Eocene', 'Pliocene', 'tertiary', etc., but he didn't know how to use the words just right, and was afraid to sprinkle them about in his article too much for fear he might make a mistake; and couldn't we put him next?

"We told him we were as much in the dark about it as he was, but advised him to hunt up a Webster's unabridged, and use as many of the words as he could, for no one knew what they meant anyhow.

"Do you know what that chap

did? He got hold of some geological works; crammed his head full of long words and became so familiar with them he could roll them out as easily as a brook babbles its song through a meadow; and then in a week or two branched out in San Francisco as an Eastern oil expert.

"We promised to keep still about it, and did keep mum as long as the expert business was booming, for we believed that the fellow's gall, cheek and enterprise deserved success.

"Did he succeed? Of course he did. Had money to burn. Was soon boarding at a fine hotel; smoked two bit cigars, and has been known to open up unlimited quantities of wine. His charge was \$100 a day, and he got it, and his reports are quoted in hundreds of prospectuses.

"He staid with the oil expert business until it petered out, and now has hied himself to other pastures and other pursuits; but if he hasn't forgotten how to sling geological terms and jaw cracking words he can pose as one of the best oil experts in the country.

"Did his reports have any value? Some of them did and more did not. His prophecies were just about as true as those of the other fellows in the same line of business—not much better and not much worse. But I shall never forget the day when he asked me to tell him what an anticline was."

### Fortune in Asphalt.

If indications point right the Standard Rock Oil Co. is travelling fast on the road towards a dividend. The preliminary carload shipment of refined asphaltum to England is by this time safely on the Atlantic ocean and will arrive in Liverpool towards the end of February. On its arrival the English firm will test the material thoroughly and compare the carload shipment carefully with the first smaller sample sent, which was fully up to their expectations and on the strength of which the carload order was given to the company. If equal to the samples the Standard Rock Oil company will receive a large regular annual contract from this large English firm and it is fair to state, although kept a profound secret, that the first order will exceed 500 tons and is more likely to be 1,000 tons with a splendid chance of capturing the market of the rest of the continent for the company, which would mean success and prosperity increasing the value of the stock many fold. As soon as the first large order of refined asphaltum is received the stock will be entirely withdrawn from the market at the par value of \$1 per share so that stockholders may know what their stock is worth, which at present is still held at 50 cents for a very short time

only. At this figure the stock certainly looks very cheap as an investment and there is hardly any to be more highly recommended than this company's stock for many substantial reasons, among which are that the management is beyond reproach, businesslike and honest, that no salaries are paid to anyone; large amount of treasury stock, and only nominal office expenses. All that counts with shrewd investors.

### Storing Oil In Russia.

The following is a description of a method of storing oil in vogue in Russia:

"In Russia oil is stored in water. If there is no natural body of water at hand, an excavation is made and filled with water. In the center of this artificial lake they drive a circular row of piles, from which is suspended a bottomless tank of thin sheet iron. This tank is of the thinnest possible material and could be made as well of any water proof fabric. The top is kept a little above the surface of the water. The oil flows from a pipe to the center of the tanked inclosure, and, being lighter than water, floats on the top. As the oil flows in, the water flows out of the bottom of the tank. It is a very simple arrangement.

"As the pressure of the water

from without is the same as the pressure of the oil from within, the tank has to stand no strain and can therefore be made of any material that will prevent the seepage of oil. The sand and dirt that is pumped out of an oil well and that collects in the bottom of our tanks is a never ending source of trouble. By this arrangement the sand sinks to the bottom of the lake and the oil purifies itself. Again, if a tank of oil gets on fire they can save the oil by pumping it from the bottom. The oil burns only on the surface. When they have drawn all the oil out, the flames have nothing to feed on but the surface of the water and the fire goes out."

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**VENEZUELA ASPHALT.****Immense Deposit of Superior Quality and Easily Handled.**

The dispute between two rival American corporations over the possession of an asphalt lake in Venezuela has caused special interest in what an asphalt lake is like and how asphalt is mined and shipped to market. Asphalt, or asphaltum, is the solid form of bitumen. Bitumen is a generic term which is applied to a variety of substances, ranging from natural gas, naphtha, petroleum and mineral tar to asphalt. The asphalts of different localities vary greatly in composition, as is shown by their chemical reactions. Nearly all are amorphous and have the general appearance of pitch, melting at about the temperature of boiling water. Asphalt, it is thought by scientists, has resulted from the hardening of the maltha and petroleum elements, through oxygenation and evaporation.

One of the most important asphalt beds in the world is the pitch lake in the State of Bermudez, Venezuela. This valuable deposit was unknown to American capitalists until 1888, when an American engineer, Ambrose Howard Carner, received a title to the property from the Venezuelan Government. This he sold to the New York and Bermudez Company, which is closely allied to the so-called asphalt trust of which General F. V. Greene is president. The several square miles which are included in the concession obtained have, in the last thirteen years, been steadily improved. The company has cleared the Maturin River to navigation, so that deep sea craft from all quarters of the globe can run in from the Caribbean Sea, past the British possession of Trinidad Island, and inland to the docks of the company at Guanoco.

The town of Guanoco is the river terminus of the Bermudez Company's railroad. Here are hundreds of native Venezuelans, working under the eye of an American superintendent. The raw asphalt is brought from the lake, five miles distant, on flat cars, and shoveled into the holds of the vessels. At Guanoco this operation is much simpler than at Trinidad, where lighters are necessary because of the long, shelving beach of the harbor. The railroad follows an old Indian trail which led from the river to the shores of the pitch lake. The surface of the lake is so hard that for some distance from the shore it supports the weight of a loaded train. As one looks over the surface of this great deposit he at first sees nothing of a striking or unusual character. He views only a black plain, resembling anthracite coal, or flint, upon which are groups of natives working with picks and shovels. Closer examination, however, shows that portions of the surface are soft like tar, where the asphalt is sticky and bub-

bling. Asphalt is distinguishable from anthracite not only by its form, but because it is soluble in bisulphide of carbon and benzole. These pitch pools resemble somewhat the hot springs of the Yellowstone region. They slowly cool, and become hardened after many years. As at Trinidad, they vary in depth. Some of them have never been fully sounded, and are thought by the natives to extend into the bowels of the earth.

The asphalt which is mined at Bermudez Lake is more or less hardened, and is obtained with some difficulty, as it retains the sun's heat to a trying degree.

The Bermudez Company, after years of experiment, has succeeded in putting on the market asphalt which will neither crack from cold nor melt under the burning sun. About a decade ago vehicles were likely to cut into asphalt pavements in the summer months. By chemical treatment this has been obviated in all the newer pavements, even in hot countries, where it fully resists the sun's heat, and at the same time retains its durability and elasticity.

Asphalt is used largely in the manufacture of cements. It is mixed with a petroleum residue to render it plastic, and is then tempered with one-seventh its weight of sand. It also forms one of the most waterproof materials known. For roofing purposes it is mixed, while hot, with fine gravel, or is absorbed by thick rolls of felt paper.

Asphalt is found in many countries. In Vera Cruz, Mexico, near the village of Moloasan, is a mountain largely composed of asphalt. The deposits at Seyssel, France, and at Val de Travers, Switzerland, consist of limestone impregnated with bituminous matter, which, when heated, crumbles to a powder. After it has been pounded into molds and is cooled it resembles the original rock. Over 1,000 miles of the streets of Paris have been supplied from these two localities.

**OIL ON PUBLIC LANDS.****Bill Providing for Concentration of Assessment Work.**

The measure introduced at the last session of Congress by Representative Sutherland of Utah, with reference to prospecting for oil on public lands, has passed the House at the present session, and it is thought probable that it will pass in the Senate. Prospecting for petroleum on public lands or taking them up for that purpose, is done, in the absence of other laws on the subject, under the placer mining laws, as also to some extent under the placer mining laws, as also to some extent under the agricultural grants. Mr. Sutherland's measure provides for concentration of assessment work by which a group of claims may be held thus:

"Be it enacted, etc., That where oil

lands are located under the provisions of title thirty-two, chapter six, Revised Statutes of the United States, as placer mining claims, the annual assessment labor upon such claims may be done upon anyone of a group of claims lying contiguous and owned by the same person or corporation, not exceeding five claims in all: Provided, That said labor will tend to the development or to determine the oil bearing character of such contiguous claims."

In calling up the bill for consideration Mr. Sutherland said:

"This bill provides that assessment labor upon oil mining claims may be done to anyone of a group of claims, not exceeding five in all, provided the claims lie contiguous to one another. These oil mining claims are now located under the provisions of the placer mining act, under an act of Congress so providing. Now, it has been found that in prospecting for oil upon these lands it cannot be determined from an inspection of the surface whether oil will be located in driving the wells or not, so that very often it turns out that a number of experimental wells are driven before the oil-bearing character of the land is determined. It is thought by those who are engaged in this business and by the committee itself, which has had the subject under investigation, that it is a great deal better that the assessment work of \$100 per annum upon each claim should be done upon one of a group of claims, thereby allowing \$500 worth of work to be done upon one well, than it is to distribute the work in five different wells, and thereby do \$100 worth of work upon each of these claims. It is thought that it will be in the interests of the oil-mining industry itself. The bill is unanimously reported from the committee, is desired by the people of the Rocky Mountain mining States who are engaged in this business, and in its present form is, I understand, not objectionable to the Commissioners of the General Land Office."

Under the placer laws as they now stand twenty acres is the extent of a claim which the assessment work upon it will hold.

It has been demonstrated many times in the past few years that an unproductive well in new territory condemns but one location and presages but little as to what may be developed. The past is full of instances of where what afterward proved to be prolific producing territory had been condemned by one or more unproductive test wells and the leases surrendered. The practical operator no longer pins his faith to the drilling of a single well to prove the value of any considerable block of leases.

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Improved conditions in the California fields have given a great impetus to development work. In the Sunset field alone \$40,000 have been spent in the last thirty days. More than 100 derricks have been put up.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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ONE YEAR.....\$2 50  
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THREE MONTHS.....1 00  
SINGLE COPIES.....10c

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine Street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY... FEBRUARY 14, 1903

The stormy weather that has prevailed for the last three weeks has interfered greatly with development

work in the oil fields, especially in those fields located within the storm area of the State. The unusually heavy rains have rendered the roads almost impassible on account of slides, washouts, loss of bridges and culverts, and the hauling of supplies and machinery has been absolutely impossible. One instance is reported of a teamster who worked three days to haul a light load one mile. This is but an illustration of the difficulties that have been encountered in various sections. As a consequence many rigs are idle that otherwise would be employed, and many men are laid off because circumstances make it impossible to continue at work. As soon as the weather settles and the roads are repaired work will be resumed with greater vigor than has ever been displayed in the fields. Very many companies will commence operations which have waited until the oil situation becomes cleared, the price of oil advances and transportation facilities increase.

The most encouraging features to be noted are the near completion of the Standard Oil company's pipe-line from Bakersfield to the bay; the line will be in operation early in March and when completed work will be begun on a branch line eighteen miles long from the Coalinga field to the pipe-line. Work on the Jewett & Blodgett pipe-line will soon be begun in the Sunset field, and will open up a large and very rich oil territory, and allow a large quantity and superior quality of oil to reach the market.

The work of grading the Mid-

land Pacific from Sunset to Port Harford has actually commenced, and, unless the funds give out, the road ought to be completed and in running order by the end of the year. The management contemplates extensive oil tankage at Sunset and the coast and connections with coast and trans-Pacific steamship lines.

That the completion of the Standard pipe-line and the refinery at Point Richmond will give a wonderful stimulus to the oil industry there can be no doubt.

This is already seen in the stiffening in the price of the stock of all companies that are producing oil in any amount, and especially if their output is sold for a term of years at a fair figure.

California's oil industry has seen its darkest days, and the price of oil will never be as low. Already the price is steadily advancing and is now firm at 20 cents a barrel at the wells for heavy Kern River fuel oil. The price of refining oil is much higher, and the demand is increasing.

There is no doubt that the California oil industry is on the eve of a long period of great and increasing activity, and individuals and companies that secure good land in any of the producing oil belts will, with good management, profit greatly in the end.

The opinion has been expressed by the PACIFIC OIL REPORTER frequently and has been reiterated

by the best oil experts in the State, that the southern boundary of the Kern River oil field is not defined by the shallow bed of the Kern River, which flows through sections 2 and 10 of 29-28.

The bed of the Kern River is but a mere scratch on the surface. Geologically there is as much reason for believing that oil exists south as north of the river. In fact in practically every instance where the drills have penetrated deep enough oil has been found indicative of greater deposits existing below.

In no case has any well been sent down to the depth where it is believed the prolific oil is located.

The reason in every case that has come to our knowledge is improper tools and inexperienced men. The formation is sandy, rendering drilling very difficult with the ordinary Standard rig as the sand heaves up in the pipe as fast as it can be taken out with the sand pump, and faster. In some cases the drillers were inexperienced, and knew not how to take advantage of opportunities. In other cases good drillers were handicapped by being compelled to follow the orders of boards of directors who thought that they could direct matters from San Fran-

cisco, Los Angeles, or some other place far removed, better than could experienced men in the field.

The PACIFIC OIL REPORTER believes that oil can and will be found south of Kern river, and that that the oil will be of a lighter quality than that found in the proven Kern River field. It believes the old Standard rig should be discarded for one better adapted to drill in this sandy formation, such as for example the new combination rotary and Standard rig, which, if it can do what is claimed for it can reach the 2,500 foot mark south of the river in less than sixty days at the most.

In order to prove this territory thoroughly the owners and lessees of land in sections 13, 14, 15, 22, 23, 24, 25, 26, 27, ought to unite their resources by assessing themselves so much per acre, and make a contract for a well that will be sunk to such a depth as will prove whether or no oil can be found in this portion of Kern county.

The nine sections named above contain 5,760 acres. An assessment of \$3 an acre is small enough to not be burdensome on the landowners or lessees, but is enough to sink a well deep enough to prove the territory provided a contract is let to experienced men with a proper rig.

Where the well should be sunk is a matter that would occasion a wrangle among those who always want to get hold of the long end, and obtain an advantage over their fellows.

If the landowners and lessees of these nine sections are willing to assess themselves the necessary funds to prove the territory we should be in favor of sinking the well as near the center of the territory as possible, which is the center of section 23. At this writing we do not know who owns the land, what company is operating there, or the topography of the country. But if a well is drilled there and oil is found of good quality and quantity every acre in the nine sections would increase in value from nothing to \$1,000.

Now that the oil situation is so much improved and the outlook is so favorable it would seem that this proposition ought to receive immediate and favorable attention. If the principal land owners would start the initiative in the matter and head a procession the smaller land owners and companies would fall into line only too quickly.

## Higher Price for Oil.

There is every reason to believe another advance in the price of crude oil will take place. This is a logical circumstance under the general law of supply and demand.

It is said domestic sales since the first of the year have been

the largest known for a similar length of time. At the same time the production is running behind and stocks are being drawn on more heavily than ever before. The report for the month is bound to show a great decrease in the stocks in all the illuminating oil fields.

The present price of oil, says the Los Angeles Herald, is high enough to interest investors and more capital is seeking investment in the oil fields of California than for many years. It is a movement toward legitimate investment with a promise of good returns.

Leases in all the fields are commanding a high price. In some cases the land owners are asking so much that they are injuring their own interests. More rigs will be put at work in the oil fields this spring than in many past months, because the demand for a larger output is imperative unless stocks are to be exhausted within a short time.

Future prospects do not alter immediate conditions and the fact remains that the production to-day is so much below the consumption that higher prices seem certain. Well informed men say there will be an advance of at least 5 cents a barrel during the next four weeks.

## The Funnel Behind.

The Chem. und Tech. Zeitung says, everyone is familiar with the locomotive having the funnel in front. This style is the result of constructing the locomotive for coal heating, the tender being placed in the rear so that coal can be readily transferred to the fire box. In oil-fired locomotives the fuel could be conveyed in pipes to the furnace, and it would be possible to place the firebox in the front and the funnel behind. This method would have many advantages, of which not the least would be that the engine-driver could see the track from the front. By the use of liquid fuel improved evaporation could be obtained on account of the facility with which the firegas could be conducted.

## Words Of Praise.

The special New Year's edition of the PACIFIC OIL REPORTER was a happy departure from the prevailing publications of this kind, whether as to literary merit, illustration or freedom from turgidness. The typographical work is excellent and the half-tone illustrations are brought out with a clearness which reflects credit alike on the pressman and the engraver. The statistical work has evidently been compiled with the highest regard for accuracy, and it is clear that the publishers have kept perfect faith with the public and their subscribers and advertisers in this, as in all previous instances.—Pacific States Investor.

Subscribe for the PACIFIC OIL REPORTER.



## PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

## COLUSA.

W. M. Stover of the Colusa Consolidated Oil company, was here on Thursday with Messrs. Stewart and De Jarnatt and went out to the company's land and hole sunk for oil. We think the hole is down about 300 or 400 feet. Mr. Stover said he could not state when work would be renewed on the well, but probably about May 1st. He expects to return here in three weeks.—Arbuckle Independent.

The Chehalis Oil and Mining company held its annual meeting on February 3. Three of the directors who have been on the board for the past year were retired and others put in their places. E. W. Kline gave place to J. H. Duffield. The other directors are C. H. Wever, I. J. Truman, J. Buck and W. A. Walker. It is proposed to levy an assessment of 4 cents a share on all the outstanding stock and certificates for stock which aggregate 666,000. If all should pay up, it would make over \$26,000. One third paying would put nearly \$9,000 in the treasury. The meeting was largely attended and the sentiment appeared to prevail that it was advisable to start up work on the present bored hole (which is now 480 feet deep) and put it down to 1,200 feet. This depth will perfect title to 100 acres of deeded land upon which are good prospects of cinnabar. Wood cutters will be engaged as quickly as they can be hired to go to the well site and get out wood to run the engine. Messrs. Wever and Buck, who courageously advanced money from their private means at a critical time, have been elected president and vice-president respectively. The former is honored by a re-election and the latter made second officer. Miss M. E. Herring was re-elected secretary. Director Duffield has been authorized to proceed to the well and look after affairs there. This is the condition of things as we understand the situation.—Arbuckle Independent.

## FRESNO.

The 1st of April will see great activity in the Coalinga field. It is estimated that by the early summer at least twenty rigs will be at work in the field. The Standard is after all the refining oil in the field.

The pipe for the Standard pipeline from Coalinga to the main Bakersfield line is now on the ground, and work will commence as soon as the main line is finished which will be by the 1st of March. The Coalinga line will be over eighteen miles in length.

The Caribou company which has 160 acres of first-class oil land, and has three wells down to the first sands will soon deepen these wells, and put them down to the sands discovered by the California Oil Fields, Limited, on both sides of the Caribou property. This will necessitate putting these wells down only about 300 feet deeper, which can easily be done, but the deepening will increase their capacity from 150 barrels to over 500 barrels per day at the least. The Caribou land is only a short distance from the new tanks of the Standard, and as soon as the Standard pipe-line is finished Caribou oil will be in demand. This company ought to be in a year in the front rank of the producing companies in the State. It has plenty of oil, and good oil.

## GLENN.

News from the Washington-California company's oil well is to the effect that indications grow better each day. The sand pump brings up oil constantly and all those interested in the company are jubilant.—Willows Journal.

## KERN

Lee and Castle will put down a well on 34, 12-24 in Sunset. Mr. Lee this week purchased a carload of casing.

The Monarch and its lessees will put down ten new wells within the next few months. This company now has a patent to all its lands.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

Well No. 1 of the Twenty Oil company was started pumping again last week after lying idle nearly a year. The casing in No. 2 was perforated last week Tuesday.

The Kern County Land Company has commenced a suit against W. G. Ross to obtain judgment for \$933.43, with interest, costs and attorney's fees, on a promissory note.

The Golden West Oil company, operating on 12, 11-24 at Sunset, has purchased an additional rig and will put down two more wells at once. The well recently finished was bailed recently for two hours without lowering the oil.

The Chanslor-Canfield Midway Oil Company has commenced a

suit against William L. Bruce to declare forfeited lease of the northeast quarter of the northeast quarter of section 8, township 32 south, range 23 east, containing forty acres, on the ground that the terms of the same have been violated.

The Dabney is making preparations to drill another well soon. During the last three months or longer, this company has suffered a big loss in oil production from water entering the oil strata. The wells are now producing barely one-quarter of the original output, due to defective casing on an adjoining lease.

As soon as the specifications are completed which will be within a few days if not by the end of next week bids will be asked for the building of the Jewett & Blodgett pipe-line from the refinery up through the Sunset fields to the wells of the California Fortune and Monarch Oil companies, and perhaps beyond. It is expected the line will be ready for business before July.

Oil companies operating in Sunset will greatly rejoice to hear that J. I. Waggy, the contractor, began moving dirt Tuesday morning in the Cuyama valley east of Sunset, on a contract with the Midland-Pacific for ten miles of grading. This contract is to be extended shortly, and additional teams will then be employed. At present there are fifteen scrapers and teams on the work.

The Belgium Oil company, at McKittrick, is now pumping two wells which are yielding over 300 barrels a day. The company has sold its output to the extent of 25,000 barrels, and when this contract has expired has other contracts in view which will require the immediate drilling of more wells. The company has its own pipe-line, three miles in length, and has sixty acres of first-class oil land. The company has suffered with all the other companies in this field from lack of tank cars, from the Southern Pacific railroad.

The Arcata Oil company, section 31, in Sunset, has its well down to a depth of over 1,100 feet, and according to those interested in this enterprise they are now in the neighborhood of the oil sand. Before commencing development work in this section they figured on a depth of about 1,200 feet and made preparations accordingly. The eight-inch drive pipe is still moving, but since they are now working in a solid clay formation this string of pipe will shortly be landed and a six-inch string inserted. The formations are similar to those found by the Lucky Boy on the southeast quarter of the section and prospects are regarded as promising for an early strike.—Echo.

On account of the erection of a barbed wire fence and locked gate across what has heretofore

been considered a public highway, no end of inconvenience has resulted to visitors to the Beaver, Lucky Boy and California Fortune Oil company's wells in Section 34, 12-24. The former has just completed a fine well and the latter company is noted for having more oil in storage than all other Sunset companies combined and for having a well (No. 1) that has not stopped flowing for a single minute since it was drilled about a year and a half ago. When driving up the canyon to reach these properties everyone encounters an insurmountable barrier and is compelled to drive back half a mile and up one side and down the other of one of the highest hills in the district. There is much unpleasant comment about the property owners who have no wells thus interfering with the rights of those who have something of interest to visitors in this part of the field.

## MONTEREY.

President Brophy of the Combined Oil Land company has been inspecting the company's holding in Monterey county, six miles south of San Lucas, where a 14-inch well is being drilled.

Kellerman & Graham of Los Angeles are drilling a well fifty feet from where the old Nonpareil well was abandoned. This well went down 1,030 feet, and when work was abandoned the drill was in oil. The new well will be drilled deep.

## ORANGE.

The Fullerton Tribune says that thirty-four new wells are now being drilled in the Fullerton field and three rigs are in course of construction.

Graham & Loftus opened another good well and during the past four days it has been gashing at the rate of 1600 barrels a day. The well, No. 15, is down 1700 feet and has not yet been put on the pumps. It is flowing 20 per cent gravity oil.

Owing to a shortage of tank cars the producers in this district have been having considerable difficulty of late in keeping up with contracts. The Santa Fe Railway company reports that it is now behind on the delivery of its own oil, and for ten days recently the Fullerton company was unable to obtain a single car.

The transportation companies are now being besieged by producers anxious to get the oil to market, but they have thus far been unable to keep up with the demand.

## SAN DIEGO.

After all kinds of hard luck at the Cactus well, Captain Barrett has bought a new boiler and is starting again with the expectation that he will soon have an oil well. It has been a long-winded deal, but it is to be hoped it will prove good at last.



## SAN MATEO.

Superintendent Holmes of the Wisconsin and other companies operated under the management of Mr. J. E. Kerr, was in San Francisco on Monday and stated that continued bad weather and heavy rains had necessitated a practical shutdown of all work on the wells in San Mateo county until the roads could be repaired, and the bridges and culverts that were washed away could be replaced. The Wisconsin well is still on the pump and working slowly, just enough to keep the well free. The tanks are nearly full of oil. This well is down only to the top of the producing sand but is even now a good producer. When the sand is penetrated a sufficient depth this well is expected to be one of the most valuable wells in the State, as it produces the best refining oil yet discovered.

**Beginning to Grumble.**

The stockholders in the Mexican Petroleum company are beginning to grumble loud and deep.

This is the company that has 600,000 acres of land on the Gulf side of Mexico. Eight wells have been completed, and the company is manufacturing asphalt, or rather is selling its oil to another company which is making and selling asphalt.

The company has raised some-

where in the neighborhood of \$300,000 by the sale of stock and by assessments, and the stockholders are asking what has become of the money. E. L. Doheny is the president, he having been elected after E. W. Ripley of the Santa Fe resigned. Mr. Doheny has made a number of trips to Mexico and to the East in his private car, and is drawing a salary stated to be of \$1,000 a month.

W. P. McGinnis, formerly of the Santa Fe, is the superintendent, but as he holds a political position in Los Angeles he has little to do with the actual affairs of the oil company. He draws down \$6,000 a year. Mr. Wiley, a former driller and contractor is the active superintendent at \$3,000 a year. The company has bought an immense amount of machinery, and promised operations on a grand scale, but the stockholders are not able to find out how the money is spent, and believe that its affairs need investigating. There is liable to be music in the air before long. Joe Chanslor was a heavy stockholder, but it is understood he has unloaded his stock. Much of the stock is held in Los Angeles, and in Pittsburgh, Pa.

If reports be true the company has spent thousands of dollars in reckless and needless extravagance.

**Branching Out.**

Messrs. C. M. Hatcher & Co., who handle the Norwegian Consolidated (Gold) Mining Company in Boston, Brockton, Philadelphia and Toledo, have added Worcester to the cities in which the firm has branch houses, having opened a suite of offices in the Central-Exchange building, Main street, with Dr. E. S. Tracy, a former successful business man of Brockton, as manager, assisted by Messrs B. H. Prior and George S. Bliss of that city. Messrs. Hatcher & Co., have achieved remarkable success since opening their office in Boston in November last, and the establishment of an office in the "heart of the commonwealth" is additional evidence of their cordial reception at the hands of the investing public of New England.

**Big Drilling Contract.**

One of the largest contracts for drilling oil wells ever let by one company has just been let by the Consumers' Gas Trust Co. of Toledo, O. The contract was awarded to the Decker Bros. of Alexandria, Ind., and calls for 600 wells.

Derricks are already up for 100 of the wells, between Marion and Alexandria and 10 oil wells are drilling. Five more drilling outfits will start at once.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

**The Associated.**

The Associated Oil company is putting up another big tank at Point Richmond on the hill above the Santa Fe mole alongside the present one. These tanks are utilized for the storage of fuel oil.

The Southern Petroleum Club has been formed at Beaumont, Texas, as a social organization for the purpose of bringing together those interested in the petroleum fields of the South.

**Sale of Stock**

Sealed Bids will be received for a block of one hundred thousand shares of the capital stock of the St. Paul and Sunset Oil Company of par value One Dollar, fully paid and nonassessable. Stock was selling at sixty-five cents and taken off the market January 10. Proceeds of the sale of this stock are to be absolutely expended in improvements on this property. Right reserved to accept or reject any or all bids.

Address: A. D. Warner, President, St. Paul, Minn.

**INVESTIGATOIN MEANS INVESTMENT**

By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY**

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



## MINERAL LUBRICANTS.

## Material Advance in Price Owing to Increased Demand.

Lubricating oils are in demand, and refiners who can place upon the market a high grade cold test cylinder article are receiving exceptionally high prices.

The Oil, Paint and Drug Reporter of New York says that "while the price of Eastern crude petroleum was climbing from \$1.20 to \$1.52 a barrel the quotations on mineral lubricating oils were advanced but three-quarters of a cent per gallon. With crude oil now tending downward, prices on the latter having declined on two successive days this week, the trade was surprised by the announcement of a sharp rise of a cent a gallon in the price of every grade of mineral lubricants except cold test cylinder stocks, and these latter were advanced five cents a gallon, a change in prices held to be unprecedented for magnitude. The reason assigned for such a very decided rise at this time is that consumption has assumed such proportions as to have out-run production, and this is verified by the fact that for some time past buyers have experienced great difficulty in obtaining supplies of lubricating oils in sufficient quantity and as fast as wanted. Primarily the increased consumption is due to the great activity in all industrial lines based on the general prosperity of the country. The heavy demand for lubricants thus created has been the more felt by producers of mineral oils because of the exceptional scarcity and high cost of all animal greases which enter into competition with them. These animal products have been in such limited supply and commanded such extreme prices for so many months that they have been placed out of the reach of many consumers who have hitherto given them the preference, and the demand being thus thrown upon the mineral oils has, in conjunction with the large natural increase in the consumption of the latter, produced a condition of stringency said to be unprecedented in the history of the trade.

"A factor of no small consequence contributing to this condition is the extraordinary growth of export business in mineral lubricating oils. In the month of December alone last year the increase in exports amounted to over 1,800,000 gallons, while for the twelve months the total shipments aggregated 79,933,109 gallons, an increase in round numbers of 6,900,000 gallons, compared with the exports in 1901. The rate of increase in both home and foreign consumption attained during the past twelve months continues, and despite the downward turn in prices for crude a still higher range of values on lubricants is held to be not improbable."

California refineries are able to furnish an exceedingly good quality of lubricating oil. The crude oil produced here is of such a quality and contains such elements that when properly and carefully treated a cold test cylinder oil can be manufactured, equal if not superior to the best Eastern product, especially as regards the cold test. Our oil will stand a cold test that makes Eastern oil useless. California oil is a pure mineral oil and contains no animal greases which have to be placed in the Eastern lubricants, but which make them impossible to stand a severe cold test.

As a result our refineries that are turning out a first quality cylinder oil are all far behind in filling their orders, which lately have increased beyond anticipation.

## An Oil Field's Christmas.

Probably the most unique Christmas entertainment ever given in Chanute was that given by the Sunday school of the Christian Church. Santa Claus was brought down to date, and the place of the regulation tree was taken by an oil derrick, which was loaded with all kinds of nice presents. Santa Claus could not come, so Superintendent Barron announced, because he was stuck in the mud at Iola, but he had drilled them a well, he said, and given him the log, so they got along very well without the old gentleman. The log of the well was very in creasing. The first 123 feet was good will. Then the two feet of contrariness, which was cased off and sealed up at both ends. The drill next passed through 250 feet of respect for the superintendent and 120 feet of love for the members, then four feet of chunk and four feet of cream candy, and then 120 feet of oranges.

The climax of the evening was the shooting of the well. A man shot a gun off in the basement and with the aid of bellows cut paper and sawdust were thrown up in a stream over the derrick and presents.

In addition to these features a very interesting programme of recitations and songs were rendered. The crowd at the church was very large and over a hundred had to be turned away.—Chanute (Kans.) Tribune.

## The State to Drill.

The Oil Men's Association of Indiana will ask the Legislature for an appropriation of \$50,000 to be expended in deep tests in various parts of the Indiana oil field. The idea is to discover a new supply of oil below the Trenton rock, which is gradually becoming exhausted. There is still a large area of untested territory, however, which is bound to produce a large amount of oil when it once begins to be developed.

## APPLICATION FOR CHANGE OF NAME.

In the Superior Court of the City and County of San Francisco, State of California. No. 94083, Department No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

To the Honorable, the Superior Court of the State of California in and for the City and County of San Francisco: The above named Sinaloa Mining Company, a corporation, petitioner named herein, applies to the said Superior Court for an order changing the name Sinaloa Mining Company to Los Tecotes Gold Mining Company, and in that behalf aver and set out:

I. That the said Sinaloa Mining Company is a corporation duly incorporated and organized and existing under and by virtue of the laws of the State of California; that the date of the formation of your said petitioner was the 26th day of May, 1886, and the said Sinaloa Mining Company is the present name of your petitioner, and the name to which it is proposed to change the said name of the Sinaloa Mining Company is the Los Tecotes Gold Mining Company; that the principal business of the Sinaloa Mining Company is transacted in the City and County of San Francisco, State of California, and its Articles of Incorporation are duly filed in the office of the County Clerk of said City and County of San Francisco.

II. That the capital stock of said Sinaloa Mining Company consists of Ten Million Dollars (\$10,000,000), divided into One Hundred Thousand shares (100,000) of the par value of One Hundred Dollars (\$100.00) each, and of which capital stock twenty-five thousand (25,000) shares have been issued and fully paid up.

III. That the directors of said Sinaloa Mining Company are Geo. S. Montgomery, A. W. Bennett, S. R. Break, M. E. Randolph and R. H. Cross, and at a meeting of the said Board of Directors, duly and regularly held on the 2nd day of February, 1903, at the place of business of the said Sinaloa Mining Company, in the City and County of San Francisco, the said directors duly and regularly resolved and authorized the President and Secretary of the said Sinaloa Mining Company to file with the Clerk of the Superior Court of the City and County of San Francisco, State of California, this petition and application to change the name of said Sinaloa Mining Company to that of the Los Tecotes Gold Mining Company, the said petition to be signed by a majority of the said Board of Directors.

IV. That the members of the Board of Directors of said Sinaloa Mining Company are owners of a large number of shares of the capital stock of said corporation, and together with nearly all, if not all, the stockholders of the said Sinaloa Mining Company earnestly desire that its name be changed

to that of the Los Tecotes Gold Mining Company, for the reasons hereinafter set forth.

That the said Sinaloa Mining Company is situated in the State of Sinaloa, United States of Mexico, and consists chiefly of the mining property known as Los Tecotes Mine, which has been worked for gold and silver, and is known as the Sinaloa Mining Company, a corporation, and is situated in the State of Sinaloa, United States of Mexico.

That the name of Sinaloa Mining Company is too general and the property of the company is confused with that of other companies bearing similar names.

That for the above and other reasons it would be for the best interests of said Sinaloa Mining Company and its business would be greatly improved if the change of name herein applied for be effected.

V. That there is no association or corporation in this State or elsewhere using the name of Los Tecotes Gold Mining Company to the best of petitioner's information or belief.

Wherefore your petitioner prays that the name of said corporation, to-wit—Sinaloa Mining Company, be changed to Los Tecotes Gold Mining Company, and that a time be fixed as provided by law for the hearing of this application.

SINALOA MINING COMPANY,  
(A Corporation)  
By GEO. S. MONTGOMERY, President.

(Seal) S. R. BREAK, Secretary.  
GEO. S. MONTGOMERY,  
A. W. BENNETT,  
M. E. RANDOLPH,  
S. R. BREAK,  
R. H. CROSS,

Constituting a majority of the Board of Directors of the Sinaloa Mining Company, State of California, City and County of San Francisco.

S. R. Break first being duly sworn deposes and says:

That he is an officer, to-wit, the Secretary

of the Sinaloa Mining Company, a corporation, petitioner herein, that he has read the foregoing petition and application and knows the contents thereof, that the same is true to his own knowledge except as to the matters which are therein stated to be the information and belief, and that as to those matters that he believes them to be true.

S. R. BREAK  
Subscribed and sworn to before me this 2nd day of February, 1903.

(Seal) J. A. P. MONTGOMERY,  
Notary Public in and for the City and County of San Francisco, State of California.

Endorsed: Filed Feb. 3, 1903, Albert R. Mahoney, Clerk, by H. H. St. Leger, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco.

In the Superior Court of the City and County of San Francisco, State of California. No. 94083, Dept. No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

Order directing publication of Notice of Application for change of name.

It is hereby ordered that the petition of the above named corporation, Sinaloa Mining Company, for the change of the corporate name to Los Tecotes Gold Mining Company, which petition or application was filed herein on February 2nd, 1903, be heard at ten o'clock A. M. on the 9th day of March, 1903, by the said Superior Court in Department No. 3 thereof.

It is further ordered that a copy of such petition or application be published for four (4) successive weeks prior to the date of said hearing in "Pacific Oil Reporter," a newspaper printed in this City and County of San Francisco.

Dated February 3rd, 1903.  
FRANK J. MURASKY,  
Presiding Judge of the Superior Court.  
Endorsed: Filed Feb. 3, 1903, Albert R. Mahoney, Clerk, by J. J. Gault, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco, California.

## THE COLUMBIAN OIL, ASPHALT &amp; REFINING CO.

CARPINTERIA, SANTA BARBARA COUNTY CALIFORNIA.

Capital Stock, \$1,000,000; Par Value of Shares, 10 Cents Each; Fully Paid and Non-Assessable. \$750,000 Worth in Stock in the Treasury.

## OFFICERS AND DIRECTORS:

President, CLARENCE W. AYERS, Oil Exprt, Carpinteria, Cal.  
Secretary, HERBERT GATES, Electrical Engineer, Oakland, Cal.  
P. M. PARCELLS, Attorney, Oakland, California.  
Vice-President, FRANK E. TRAVIS, Capitalist, Oakland, Cal.  
Treasurer, JOHN R. SCUPHAM, Oil Operator and Mining Engineer, Oakland, Cal.  
J. W. WALKER, Phoenix, Arizona.



PHOTOGRAPHIC VIEW OF A PART OF THE COLUMBIAN COMPANY'S IMMENSE PLANT.

Fabulous Wealth in Asphaltum. Deposits Unequaled in Extent and Richness in the United States. A Modern Refinery Running Day and Night Turning Out Refined Asphaltum and its many By-Products, is the Brief Story of this Commercial Proposition now being Financed by Eastern Capitalist.

STOCK ONLY 4 1-2 CENTS PER SHARE 45 DOLLARS PER THOUSAND

## DIVIDENDS IN SIGHT—

## GREAT PROFITS ASSURED—

## AN INVESTMENT FOR THE PEOPLE—

Write at once for reports, subscription blanks, photographs, etc., and make all remittances for stock payable to the company's fiscal agent.

## THE AMERICAN INVESTMENT CO.

2 Kilby St., Boston, Mass.

## Mt. Hamilton Land and Oil Co.

Owms oil territory in the Coaloga and Kreyenhagen Oil Districts. It now down over 400 feet on its first well at Alcalde, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 500 acres.

Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coaloga District.

Office 6, 7, 8 and 9 Rea Building, = = SAN JOSE, CALA.



### Oiled Roads.

Supervisor James B. Glover has invented and patented a road oiling machine which uses cold crude petroleum with equal facility to those heretofore using oil which has been heated. So much interest has been aroused in this new invention that Mr. Glover was loaded down with letters of inquiry relating thereto, some inquiries coming from New York and some from the National Good-Roads association. Mr. Glover has published a pamphlet giving full information concerning the making of roads with his new machine; also showing two fine engravings of the machine ready for use. This pamphlet will be sent to anyone applying for it to the inventor, James B. Glover, Redlands, California.

The oiled street at Santa Barbara in the vicinity of the Spaulding place, corner of Chapala Sola streets, stands the test of heavy rains, and is dry, smooth and hard when the other streets in the neighborhood are muddy and rough. This street was more thoroughly oiled than any other street in the city, and as an experiment has proven that in order to stand the wear of travel, sun and rain, the oil must be applied in liberal quantities, and thoroughly worked into the soil. When done properly, the street resembles asphalt pavement, and improves with age and use.

### Personal.

Mr. R. H. Herron, of the R. H. Herron company has been in the city this week. Mr. Herron is recovering from a severe attack of neuritis which has not only been very painful but which for a time threatened to destroy the use of the right arm.

Dr. C. T. Deane, Secretary of the California Petroleum Miners' Association, is recovering from a severe cold which has kept him confined to the house for over a week.

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo.....	.30	
Aztec.....	.85	1.00
Bear Flag.....	.05	.10
California Standard.....	.16	
Caribou.....	.75	.85
Central Point Con.....	.80	.85
Chicago Crude.....	.20	
Clairmont.....	.30	
Four.....	.60	
Hanford.....		145.00
Home.....	3.25	3.30
Imperial.....	18.25	
Independence.....	.11	.12
Junction.....		.16
Kern.....	5.25	5.50
Kern River.....	14.50	15.00
Lion.....	.08	.09
Monarch of Arizona.....	.19	.23
Monte Cristo.....	1.30	1.32 1/2
Occidental of West Va.....	.17	.17
Oil City Petroleum.....	.24	.25
Peerless.....	14.25	14.75
Reed Crude.....		.35
S. F. & McKittrick.....	2.50	
San Joaquin O. & D.....	7.50	8.00
Sovereign.....	.42	.44
Sterling.....	3.15	3.25
Thirty-three.....	9.00	10.00
Twenty-eight.....	2.75	2.90
Union.....	70.00	.75
United Petroleum.....	118.00	
West Shore.....	3.00	5.00
Wolverine.....	.65	

The San Jacinto Oil company, the largest Dallas concern operating in the Beaumont field, has gone into the hands of a receiver on application of the Texas Cotton Products company. The capitalization of the San Jacinto company is \$250,000. There are 6000 stockholders in the United States.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, February 11:

CALIFORNIA STANDARD.			
1,000 at	18.....		\$ 180 00
CARIBOU.			
175 at	85.....		148 75
CENTRAL POINT CON.			
200 at	85.....		170 00
FOUR.			
950 at	60.....		570 00
GIANT.			
100 at	25.....		25 00
HOME OIL.			
200 at	3 25.....		650 00
275 at	3 35.....		921 25
1,550 at	3 30.....		5,115 00
INDEPENDENCE.			
1,000 at	11 (S 90).....		110 00
9,300 at	12.....		1,116 00
JUNCTION.			
200 at	15.....		30 00
50 at	16.....		8 00
KERN RIVER OIL.			
190 at	15 00.....		2,850 00
LION.			
9,500 at	09.....		855 00
MONARCH.			
50 at	30.....		15 00
100 at	20.....		20 00
MONTE CRISTO.			
400 at	1 3/4.....		728 00
OCCIDENTAL OIL.			
1,050 at	16.....		168 00
800 at	17.....		136 00
OIL CITY PETROLEUM.			
1,000 at	22.....		220 00
3,100 at	23.....		713 00
1,550 at	24.....		372 00
500 at	25 (B 30).....		125 00
8,900 at	25.....		2,225 00
PEERLESS.			
10 at	15 00.....		150 00
SOVEREIGN.			
250 at	42.....		105 00
2,000 at	44.....		880 00
500 at	43 (S 30).....		215 00
5,000 at	45 (B 90).....		2,250 00
500 at	43 (S 90).....		215 00
300 at	45 (B 30).....		135 00
1,000 at	45 (B 60).....		450 00
3,500 at	40.....		1,400 00
4,300 at	43.....		1,849 00
STERLING.			
1,100 at	3 25.....		3,575 00
100 at	3 15 (S 10).....		315 00
50 at	3 10 (C).....		155 00
200 at	3 40 (B 90).....		680 00
100 at	3 30 (B 60).....		330 00
100 at	3 20 (S 90).....		320 00
150 at	3 20 (C).....		480 00
700 at	3 25 (B 90).....		2,275 00
200 at	3 25 (B 10).....		650 00
200 at	3 25 (B 15).....		650 00
1,150 at	3 05.....		3,507 50
1,100 at	3 10.....		1,410 00
1,200 at	3 20.....		3,840 00
1,135 at	3 15.....		3,575 25
25 at	3 25.....		81 25
TWENTY-EIGHT.			
200 at	2 80.....		560 00
320 at	2 75.....		880 00
150 at	2 70.....		405 00
1,100 at	3 00 (B 90).....		3,300 00
1,250 at	2 65 (S 90).....		3,312 50
350 at	2 90.....		1,015 00
1,000 at	2 85 (C).....		2,850 00
470 at	2 85.....		1,339 50
UNION.			
10 at	70 00.....		700 00
71,910 Shares Amount \$61,491.00			
CONTRA COSTA WATER.			
40 at	66 50.....		2,660 00
NORTHERN CAL. POWER CO.			
100 at	9 00.....		900 00
140 Shares Amount \$3,560.00			

### Stock, Bond and Investment Syndicate

(Incorporated)  
Money Loaned on Stocks.  
Listed and Unlisted Oil and Mining Stocks  
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514-515 Examiner Building  
San Francisco, California

### J. S. EWEN

Member California Stock and Oil Exchange,

318 PINE STREET, Room 5

SAN FRANCISCO, CAL.

TELEPHONE MAIN 1552.

### J. B. HILL

Member Producers' Oil Exchange  
Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
Member of Producers' Oil Exchange and of San Francisco Stock and Exchange Board

## GOLD!

Always at Par.

### Hudson Gold Mining Co.

Owens rich gold properties in Arizona; active work now in progress, to continue which stock is being sold at

**10 CENTS A SHARE** Par Value \$1.00 Full Paid, Absolutely Non-Assessable.

When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

W. G. Young & Co., Fiscal Agents,  
628-630 Laughlin Building,  
Los Angeles, Cal

## W. P. SWENEY

Contractor for Oil and Water Galvanized Iron and Steel Storage Tanks.

Office 229 Parrott Building  
SAN FRANCISCO.

Phone South 802

Residence 1634 A Howard Street, S. F.  
Specifications Solicited.

### The National Oil Refining Co.

Refiners of Crude Petroleum  
Manufacturers of High-Grade Asphaltum

Illuminating, Lubricating and Neutral Oils

Stove Distillates, Etc.

228 & 229 Parrott Building

San Francisco, Cal.

Telephone, South 802

Works: Rodeo, Contra Costa Co., Cal.

### Paul W. Prutzman

113 New Montgomery St.

ANALYSIS AND REFINING  
TESTS OF PETROLEUM  
ANALYSIS OF ASPHALT & FAT & LUBRICATING OILS

Tel. Mint 2791

San Francisco

## British-Cala. Refinery Co.

Office, 214 Stimson's Block, Los Angeles  
Location of Works, corner Vernon and Santa Fe Aves.  
Los Angeles

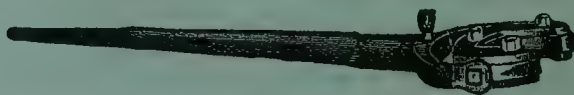
Present Capacity 200 barrels of Crude Oil a Day  
Will soon have a Capacity of 500 barrels a Day

Manufacturers of Asphalt, Lubricants, Engine Distillates, Stove Distillates, Fuel Distillates, etc. Large Stock Always on Hand.

Prepared to furnish estimates for immediate delivery to any part of the United States or Canada

### The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

J. BARRETT, Allegheny, Pa.

### W. FORGIE

WASHINGTON, PA.  
Manufacturer of

Oil & Gas Well Rig Irons  
Sand Reels, Cants, Arms and Pins. Also the Original Tool Wrenching Jack, the best and cheapest on the market.



For prices, etc., inquire

J. D. HOOKER, Los Angeles, Cal., PARKE & LACY CO., San Francisco, Cal., Bakersfield, Cal.



## Oil Concentration Process.

At a recent meeting of the Institution of Mining and Metallurgy in London, Mr. Walter McDermott said, with regard to the oil process, that so far as they had tested concentration by the oil process, not much had been done for lead ores. The few experiments had given quite promising results, and in the case of lead ores, as with copper ores, there seemed to be a peculiar difference in regard to the surface condition of the mineral, which would have an effect upon the extent to which the oil would affect a saving. Apparently, two copper ores of similar chemical composition were sometimes different in their physical properties, and would not work equally well when treated with oil; and the same with silver-lead ores. It had something to do with the surface condition, and might have some relation to the way in which the mineral had been deposited.

The statement that the process could be carried out with perfect cleanliness had been borne out by the experience gained in three plants now running in England. There was no difficulty in keeping the oil in its proper place, as, of course, the question of dirtiness in connection with the oil process, the same as with any other material, would depend upon the extent of loss by slopping over, and any marked slopping over and consequent loss of oil would be detrimental to the success of the process. The arrangements of a mill depended very much upon the constructor and the manager. The difference between the two differently constructed or differently managed concentration mills as to dirtiness was often exceedingly marked. A perfectly clean mill was likely to be doing very much better work than a very dirty one. It was possible that, after the best was done on the treatment of slime both in silver and copper mills, by water concentration, on many ores the oil might be found to make an additional saving. In fact, the chance for a wide application of the process must depend upon this, since if there was a good saving by water concentration people could not be expected to use oil.

## CALIFORNIA LIMITED

to CHICAGO, Daily



An ideal train  
for those  
who seek the  
best.

### SANTA FE TRAINS

Leave Market-Street Ferry Depot.

	Daily Local	Daily Lim't'd	Local Daily	Overl'd Daily
Lv. S. Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. St'kton	11:10 a	12:10 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p	.....	1:25 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

## CYGNET PETROLEUM CO

50,000 shares at \$1.  
Location—Fresno county.  
Directors—Chas. L. Fair, president, Edith W. Fair, vice-president, Chas. A. Lee, treasurer, John C. McKinley, secretary.  
Office—561 Parrott Building.  
Tel.—South 114.

## STANDARD ROCK OIL COMPANY.

Capital.....\$400,000  
Treasury stock.....\$350,000  
Location: 92 acres leased proven oil land in McKittrick; 80 acres owned in Coalinga near Home Oil company Fresno; 160 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president, M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. R. J. Ensign.  
Offices: 475-76 Parrott Building, 435 Market street San Francisco Cal.

## NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 20, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share; to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

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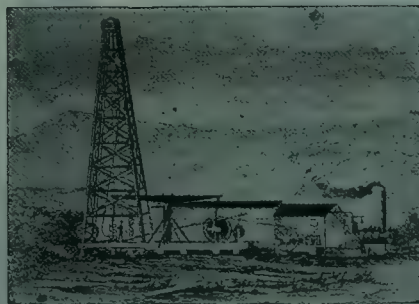
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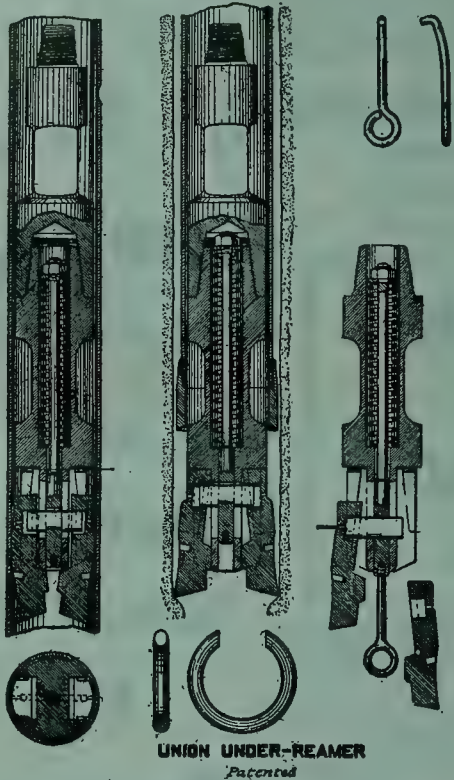
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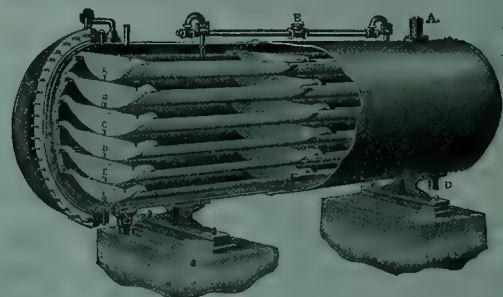
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# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 16.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 21, 1903.

Price 10 Cents.

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PITTSBURGH, PA.

MANUFACTURE EVERYTHING REQUIRED

To Drill, Equip and Operate OIL, GAS and WATER WELLS  
BOILERS, ENGINES, DRILLING and FISHING TOOLS  
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FOR QUICKSAND & CLAY, COMBINATION OUTFITS for any condition.

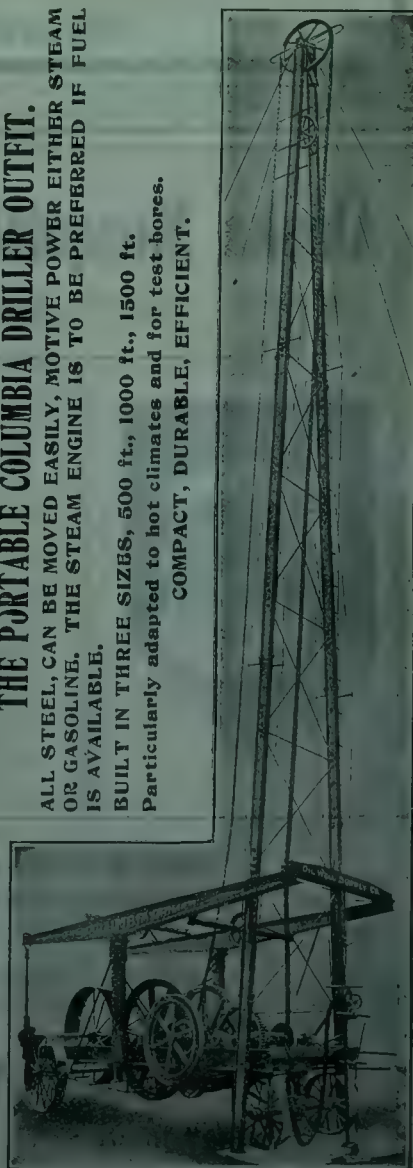
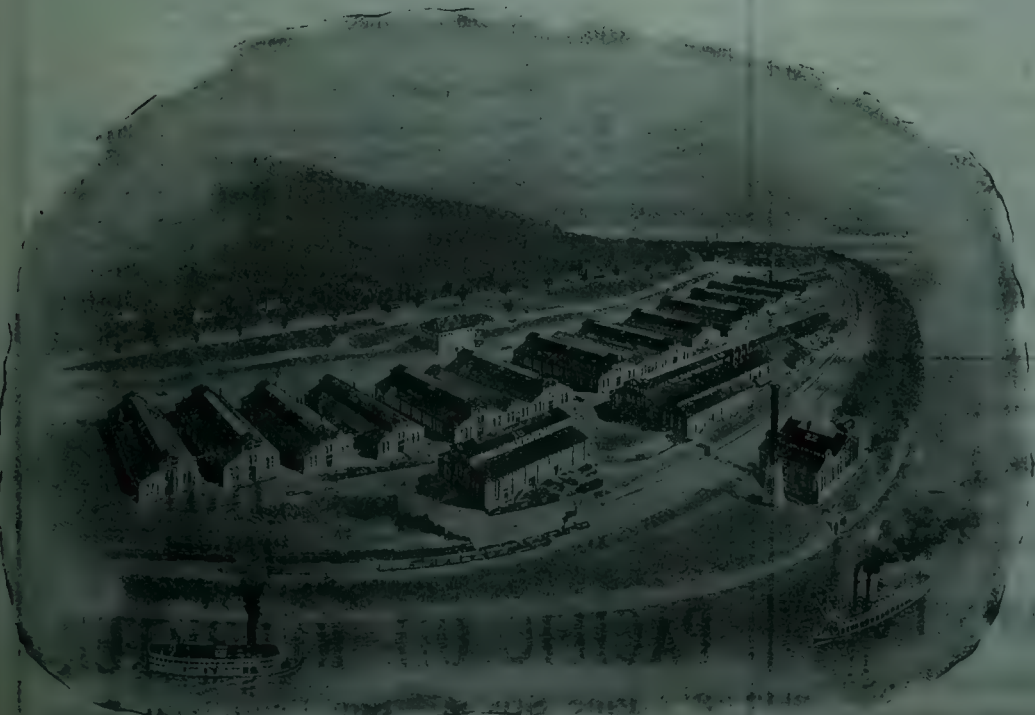
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# 50 cents Asphaltum Refinery 50 cents

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We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

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Can be worn day or night without inconvenience.

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No. 1. Made of finest netting, sure protection against mosquitoes. 50 cents.

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If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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# PACIFIC OIL REPORTER

VOL. 4. No. 16.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 21, 1903.

PRICE, TEN CENTS.

## CALIFORNIA ASPHALT.

**It is the Best Asphalt Produced in Any Portion of the World.**

**It Should Not Be Confounded with Bituminous Rock which is Not Fit for Paving Purposes, and Should Not be Allowed to be Placed on Any Street.**

A few days ago the Chronicle contained a lengthy article which deplored the condition of many of the principal streets of San Francisco which are paved with bituminous rock.

The article was timely but showed the writer was not familiar with the distinction which exists between an asphalt pavement and a pavement made of bituminous rock.

The article stated that the condition of that section of Market street, between Sansome and Haight, is such that a drive over it produces sensations akin to the rough jolting caused by a ride over an illy kept backwoods road rather than the smooth rolling one would expect over a well-paved and well-kept section of the most important thoroughfare of a large city. Between these two points the street is paved with asphaltum. In some sections the pavement has been down for the past four years, while in others it has been laid not more than a year. Never, however, since the bitumen has been spread has the street been free from a series of chuck-holes that are a disgrace to the municipality and a reflection on the board of public works.

This condition of affairs is undoubtedly due to the poor quality of material used for paving purposes. The contracting firm that spread the bitumen could, no doubt, throw much light on this particular point. The fact that men have been constantly employed repairing patches of pavement that seem to crumble and grind to powder in a very short time is evidence that a lack of care in the selection of material and a slovenliness in the character of the workmanship has always marked the job. At the present time the street is in a worse condition than it ever was before. Just before the last heavy rain one of the periodical attempts at patching up the street was made. There was a reasonable certainty that for a day or so, at least, the thoroughfare would be comparatively level. But the heavy rain of one night undid the

puttering work of days, and at the present time there are over 175 bad chuck-holes in a section of street not extending over ten blocks.

In places these ruts are over three yards wide and from ten inches to a foot and a half deep. The bitumen so recently laid seemed to be churned up into an oily slush with the heavy rain. Heavily loaded drays, and even lighter vehicles, sunk into it for a distance of eight to ten inches. In the indentations left the water stood in little puddles, making in some blocks a chain of miniature lakes.

The rain seemed to segregate the paving material, which was apparently a composition of pitch, tar, petroleum and mud. Often enough oil would be squeezed from the bitumen to form a pool of considerable dimensions. After the storm a number of such puddles were noticed near the ruts that had been washed out. At the corner of Sansome and Market streets, after the storm, passers-by stopped to notice the large pool of oil that had been formed in this way. For the full length of the asphaltum paved street pools of water containing a heavy scum of oil could be noticed. It is manifestly evident that an almost criminal carelessness was practiced in the selection of the bitumen. This negligence can be laid alone at the door of the board of public works, as they are responsible for the condition of the city's streets.

These streets are all paved with bituminous rock which, experience proves, is not fit for paving purposes.

Bituminous rock, so-called, is found in vast quantities in many portions of the State. It exists in the form of huge deposits formed, generally, by the exuding, from below from gas pressure, of crude petroleum through the crevices and interstices of shale. As it is forced upward the crude petroleum loses its volatile properties, and generally, by the time it reaches the surface of the earth appears in the form of liquid as-

phalt of greater or less viscosity. It can be seen to-day near Sargent's station, on the land of the Standard Rock Oil company, and at Carpinteria, on the land of the Columbian Oil and Asphalt company, and in other places, exuding from the surface of the earth, slowly bubbling up from its subterranean place of deposit, in the form of miniature craters of greater or less size.

The liquid asphalt, as it comes to the surface, becomes mixed with whatever is nearest to it. If the surface of the earth is sandy, the sand mixes with the liquid asphalt and the result is what is called a deposit of sandy bitumen or bituminous sand. If the surface is of a clay or adobe formation the bitumen formed is a mixture of liquid asphalt and clay or adobe.

This bitumen is the stuff that has been placed on the streets of San Francisco.

As a rule it is transported in practically the same form as it comes from the mine or quarry where it is obtained. Very seldom is it assorted, as this process costs time, labor and money.

The sandy bitumen is the best, but even this contains lumps, larger or smaller, of clay or adobe bitumen. Wherever this clay or adobe bitumen is used with the sandy bitumen for pavement the pavement is soft, easily worn, is more susceptible to heat and cold and rain, and in a short time, well travelled streets become filled with chuck holes, ruts appear and the result is that a pavement that has cost thousands of dollars per mile in a few months becomes in a condition that is a disgrace to any city, particularly in California, where the remedy for such defective pavements is close at hand.

The foundation under the bituminous rock pavement has little to do with its wearing qualities. If the foundation is poor and the bitumen good the street will soon become worn and uneven. If the foundation is good and the bitumen poor and full of clay and adobe, the streets also become worn. If both foundation and bitumen are good the pavement will remain in good condition provided it is not subjected to constant and heavy teaming, when bitumen, no matter how good or how firm the foundation, will not prove equal to the test.

What is the remedy? It is this, and this only. Do away entirely with pavements of bituminous rock, and substitute in their stead ASPHALT pavement.

Asphalt pavement is not bitumen pavement. They are totally

unlike. One is a pavement made from natural deposits of liquid asphalt mixed with all sorts of pure and impure materials in different proportions, and by different processes. The other is a pure form of crude petroleum, refined by the most careful processes, which skilled and experienced chemists can devise, and mixed with pure sand in just that proportion which experience has proved to be most satisfactory, depending upon climatic conditions and the wear to which the pavement is to be subjected.

No asphalt in the world is the equal to that made in California. It is superior to the Trinidad and Venezuela asphalt.

There is in San Francisco at the present time the gentleman who years ago first exploited the so-called asphalt beds of Venezuela and who sent the first ship-loads of Venezuela bituminous rock to New York. No one knows better than he the relative merits of Venezuela and Trinidad asphalt as compared with California, and he is outspoken in his declaration that the California asphalt is the best asphalt in the world for any purpose for which asphalt may be used.

This gentleman is Mr. C. A. Watson, now connected with the Standard Oil company's office in San Francisco, and probably as well posted on the oil and asphalt industry as any man in the United States.

California asphalt is refined from California crude petroleum which has an asphalt base, and which when refined yields a large percentage of asphalt, this percentage among the asphalt refining oils varying from 20 percent to as high as 50 percent. Some of the asphaltum is refined from "liquid asphaltum" which is ordinary crude asphaltum from which the volatile properties have more or less evaporated. Immense deposits of this "liquid asphaltum" are found in California, notably at Carpinteria in Santa Barbara county and at Sargent's in Santa Clara county, and this "liquid asphaltum" when refined and properly prepared makes a superior quality of asphaltum which can be used for purposes which require the very best asphaltum obtainable possessing characteristics which make it especially desirable for use in the arts and in manufactures.

California asphaltum when properly refined, mixed with sand and other substances in the right proportions such as are necessitated by climatic, and other conditions, should be in general use for paving and other purposes in every city of the east.

The few thousand tons of asphalt now manufactured from our thirty-two refineries ought not to be enough to more than supply the wants of California street paving alone, to say nothing of the pavements of eastern cities.

Bituminous rock is not fit for paving purposes. The city authorities should see to it that



not another block of streets is paved with it.

Asphaltum is the only pavement that can be laid down in such a manner that it will contain no soft spots, and will not wear full of ruts.

The asphaltum refineries should see to it that boards of supervisors, superintendents of streets, city and town councils throughout the east and west are educated to that extent they will not allow another yard of bituminous rock pavement to be laid, but will insist on a pavement made of properly refined California asphalt.

California asphaltum refineries need organization, need to inaugurate a campaign of education, need live eastern representation, need transportation facilities.

It is to be regretted that the big refinery of the Standard Oil Company is not going to engage in the manufacture of asphalt. With its 20,000 barrel still capacity, if it decided to manufacture asphalt it could turn out an immense amount of it, and would be compelled to force its sale in the east.

But with or without the Standard the oil refiners of California must take immediate, united and aggressive steps to make the outside world recognize the importance of California's asphalt industry and the worth, nay the superiority of its product.

Already a few of tons our asphalt have been shipped to Europe. These few tons should be followed by shipments of hundreds of tons. The east and Europe should be filled with our

asphalt advertisements, and agents should be found in every large city full of aggressiveness and enterprise and talking nothing but "California asphalt." If the Standard does not push California asphalt, the refiners themselves must get together and push together. Supply points must be established, the public must be educated, and particularly it must be shown what a difference exists between an asphalt pavement and one made of bituminous rock.

The former fills every requirement that can be asked from any pavement. The latter is practically worthless; will wear out in a year or less, and should not be allowed to be placed on any street in any city east or west.

### MIDLAND PACIFIC.

#### Great Advantages Possessed by the New Line to the Coast.

An article has been prepared for and approved by the Kern County Board of Trade which shows the great advantages that will accrue to the territory tributary to the line of the proposed Midland-Pacific railroad.

The article in part says:

"Work has been commenced on one large grading contract and other contracts will be let as fast as responsible takers can be found. The line will extend from Port Harford, or from some point on San Luis Obispo bay in San Luis Obispo county, to Bakersfield and the Kern River oil field near by."

Regarding the route to be followed the article says:

"The Coast Range being broken up into two or more parallel ranges with intervening valleys, is almost impassable throughout its length, and both existing

transcontinental lines are therefore using the single natural outlet from the interior, through which the united waters of the San Joaquin and Sacramento rivers find their outlet to the ocean. Nature, however, has provided another natural route by way of the Santa Maria river, and of this remarkably favorable route the Midland-Pacific railway will take advantage, it being believed that no other line which can compare with it in cheapness of construction and operation can ever be built through the Coast Range. The summit of the pass has an altitude of less than 3,000 feet, and is only about ten miles from the Sunset oil fields of Kern county, and in this ten miles is found the only heavy grade of the whole line.

"The construction of an Isthmian canal, which now seems practically certain in the not distant future, will bring New York within fourteen days of San Luis bay by steamer and Liverpool within seventeen days, making a saving of five hundred miles in the round trip to and from the ocean terminus of the Midland-Pacific railway as compared with the voyage to and from San Francisco, thus revolutionizing the wheat and other export business of California. The Midland-Pacific will then have an advantage of nearly two hundred miles of railroad transportation over the existing routes, in carrying freight to and from the southern portion of the San Joaquin valley, an advantage so great as to insure the control of by far the larger share of the traffic.

"It is known that there are extensive asphaltum deposits in the McKittrick oil fields, and that within four miles of Sunset and so situated as to be easily reached, there are beds of sulphur in which it is claimed that two million tons are in sight, while other large deposits of sulphur are also stated to exist east of the summit. A branch road ten miles in length from the summit west of Sunset would reach a deposit of iron ore outcropping from the south of San Emidio, northwesterly for fully six miles and would also tap one of the largest known deposits of antimony. It would also reach a large body of marble, but it is not yet known whether it can be quarried in pieces of satisfactory size. There are also some promising gold mines in

the neighborhood."

It is then shown how the Kern River field has now the advantage of being nearer to San Francisco by the present routes than Sunset and Midway, and as a result many wells in the latter fields have remained idle, the demand being confined chiefly to the local refinery, although the possibilities there are fully as great.

The article further says: "Arrangements are now being consummated by the company with the two largest distributing companies of the world by which it will receive from shippers over the Midland Pacific Railway supplies for its Oriental trade and for the sale in territory tributary to the Pacific Coast of California. Simultaneously with the building of the road it is proposed to erect at tide water storage capacity for one million barrels of oil."

The company referred to in the above paragraph is the La Shell Transportation Company. By this contract oil will be transported cheaply to San Francisco and points on the Coast.

### Vale Brooks.

Mr. B. F. Brooks, Manager of the Sales Department of the Associated Oil Company, has resigned his position, sold out his entire interests in the several oil companies with which he was connected, and has quit the oil business for good. General Manager Porter is now attending to the duties of Sales Manager, and Mr. Brooks has entered the lumber business. Other important changes are liable to occur in the personnel of the Associated Oil Company.

C. M. Hatcher & Co., of 262 Washington street, Boston, Mass., say that the stock of the Norwegian Consolidated (Gold) Mining Company is selling very freely at 50 cents a share. This flock will soon be exhausted when the price will be raised.

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Because years of experience have taught us how to make it the best.



Our product is known to all large Contractors; You can tread on it in New York, as well as in San Francisco. We also ship it to Canada and abroad.



## REGARDING PRICES:

We can AT LEAST meet any quotation made for good Asphalt. Why? Because we own miles of oil territory in Sunset District and pipe the oil from our wells direct to our refinery. We handle it from the well to the car.



Will be pleased to send samples and quotation on all grades from Liquid to the very Hardest.

**JEWETT & BLODGET,**  
BAKERSFIELD, CAL.

# THE NATIONAL SUPPLY COMPANY

## Oil Well Supplies Drilling and Fishing Tools

### Fitler Cables--best in the world

We carry in stock heavy 7 $\frac{3}{8}$ -in., 5 $\frac{1}{2}$ -in. and 4 $\frac{1}{2}$ -in. Boston Casing, in addition to all the standard sizes and weights. 6-in., 8-in. and 10-in. Boston Drive Pipe always on hand.

## Pacific Coast Headquarters

117 North Main Street

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Branches:

Bakersfield and McKittrick, Cal.



**THE VOLCAN.**

**A New and Successful Refining Company of Kern County**

The Volcan Oil and Refining Company is one of the new enterprises which have been inaugurated in California for the purpose of refining crude oil.

As will be seen from the accompanying illustration, the Company is well prepared to engage in the oil refining business on a large scale.

The Company owns 17½ acres of proven oil land in the heart of the Kern River district in section 8, township 29, range 28. It has at present only one oil well, but its territory is sufficiently large to have a dozen or more big producers on its own land and no doubt will have these wells

Shipments of asphaltum have been made to Chicago, St. Louis and other eastern cities.

The refinery is situated alongside the railroad and has its loading switch so that the asphaltum is loaded from warehouse to car.

The refinery has been constructed so that it can be enlarged any time to three times its present capacity, as the Company intends putting down more wells in time so as to produce all the oil required for an enlarged refinery.

A large air compressor is used for pumping the Company's oil well, and also two wells belonging to the Goldenrod Oil Company are also pumped by this air compressor.

The oil sand in this part of the Kern River oil field is found at a depth of about 475 feet from the

**A FORTUNE IN OIL.**

**Butler County Man Cleaning Up \$500 Per Day in Ohio.**

This interesting story of the rapid rise of a Butler oil man from comparative poverty until he threatens to break into the millionaire class, if his luck lasts, comes from Steubenville, O. The subject of the sketch, Jim Murray is well known to Butler oil men as a seeker of oily wealth in the Jefferson Centre district, from which section he drifted some years ago to prod the bosom of Mother Earth down in West Virginia, where so many of his compatriots had gone, but few fared as well as he:

Steubenville, Jan. 18.—To have an income of \$23 an hour is not the fortune of everyone in the world, but it is almost exactly that sum that James Murray, a newcomer into Jefferson county and a frequent visitor to the county seat, earns every hour of the day. When he is eating or sleeping the money rolls into his hands the same as if he were working, and now he has come to this county to increase if possible his fortune of \$550 per day.

There years ago Murray, with a large family of small children, came to New Cumberland.

The depth of producing wells in California ranges from 200 feet in the Summerland field to 2500 feet in the Fullerton field.



Plant of Volcan Oil and Refining Company at Bakersfield, Cal.

drilled within a short period in order to keep pace with the demand for the products obtained by refining crude petroleum. Its first well was drilled in 1901, and to a depth of 1025 feet; this well flowed for several months and produced about 2,000 barrels of oil without being pumped.

A refinery, a picture of which accompanies this article, was built in 1902. It has two 150-barrel stills, and has a capacity of 5,000 barrels of oil monthly, the products being asphaltum and distillate.

Several thousand barrels of oil have already been refined from the wells of the Volcan, Goldenrod, Junction, and Grace Oil Companies, the three last-named having wells within three hundred yards of the Volcan property. The oil from these wells is about 12½ gravity and yields nearly 40 percent asphaltum. All of these wells are connected with the refinery by pipe lines.

surface and continues to about 1050 feet with now and then, thin strata of clay.

The Company looks forward to sharing in the general prosperity which is fast overtaking the oil industry.

**Petroleum as a Beverage.**

The Medical Society of Paris has expressed the opinion that it is necessary to adopt some measures against the alarming spread of petroleum drinking. At first it was thought that this habit had sprung up from the increased taxation on alcohol imposed by the French Government, but investigation showed that this was not the case; the habit had been prevalent some time previously in certain districts and had spread with great rapidity. The victim of the petroleum habit does not become brutal, only morose. Opinions differ among physicians as regards the effects of petroleum drinking on the human system, but all agree on the harmfulness of this new vice.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY... FEBRUARY 21, 1903

During the present session, the State legislature will have before it several matters of great importance to the oil industry of California; one relating to oil used for fuel purposes, one relating to the danger which threatens oil producers in the several fields on account of the threatened destruction of the wells from water; and another relating to kerosene.

We understand that a committee of oil producers has framed a set of resolutions which will be submitted to the legislature which provides that due precaution must be taken to stop the reckless disregard which has been shown in neglecting to cut off the flow of water in the different fields.

These resolutions are all right so far as inflicting a severe penalty upon those who may abandon wells and thus knowingly and willfully allow the water to escape and freely flood the fields; but we do not think it is necessary to inflict a penalty upon those who are trying as best they can to stop the flow of water from their wells but have thus far been unable to do so. When a company is trying its best to preserve its own territory, there is no sense or justice in inflicting a penalty because of its inability to shut off the water.

In regard to the matter of fuel oil legislation, it has been pretty clearly demonstrated that a test of 150° is unreasonable, unnecessary and will work dire disaster to the fuel oil industry in the many fields. It is now generally admitted that a flash test of 110° is ample, will inflict a hardship on no territory and will subserve the best interests not only of the oil producers but of the consumers and the public at large.

The third and most vital subject which will come before the legislature is the proposed legislation regarding the manufacture and sale of kerosene.

Assembly bill number 468, introduced by Mr. Burgess of San

Diego, is a bill which should not be entertained for a moment by any one who has at heart the welfare of the oil refining industry of California.

As a matter of fact the bill has been introduced apparently for the sole purpose of providing positions with good salaries for a dozen politicians.

The bill provides for the appointment of a State inspector of oils whose term of office shall be for four years, commencing from the first day of September, 1903; his salary is fixed at the sum of \$250 a month or \$3,000 a year; under him shall be appointed deputy inspectors who shall each receive a salary of \$100 a month or \$1,200 a year. In other words, the tax-payers of California will have saddled on to them an expense of \$15,000 a year for the privilege of having a dozen men draw fat salaries and who practically know nothing about the oil business and are not capable of making the careful and scientific tests which are made in every refinery before any oil that is manufactured is placed on the market.

It is well enough to have a severe penalty attached to any man who manufactures or sells oil which will not bear a certain test; but the best preservers of the safety of the public so far as kerosene is concerned, are the refiners themselves who watch very carefully what their competitors are doing and will see to it that no manufacturer is allowed to place upon the market an inferior and dangerous article which he can manufacture at small cost and in selling which he can underbid his competitors. It is to be hoped the legislature will not for a moment entertain the idea of saddling up on the public such a useless and unnecessary expense as will be entailed by the establishment of a large and expensive force of State oil inspectors. The public should not be forced to pay political debts.

The most unsatisfactory part of the proposed bill is that which provides for a certain test of kerosene. The bill reads that the manner of making a flash test of kerosene shall be as follows: "A taper, hereinafter described, shall be lighted, and the surface of the oil shall be touched with the flame of the taper," etc.

The man who got up this bill certainly knew nothing about testing oil, and Mr. Burgess himself would never have introduced this bill into the Assembly if he had known what the result of this bill would be on the refining industry of California.

Kerosene is no longer tested by a taper for the reason that such a test is not reliable. One who understands his business can easily with a taper make tests of the same oil which will vary as much as 10°. The minute a taper touches kerosene, the conditions of the test vary, the flame heating the oil to such an extent that no fair test can be obtained. If the lighted taper is placed over the oil the result of the test also varies on account of the varying distance with which the taper may be placed over the oil in the different tests; the nearer the taper is to the oil, the more severe is the test.

The only test which should be applied to kerosene is that made with the "electric cup" where the

electric spark flashes over the oil one-eighth of an inch from it.

The proposed bill provides that no kerosene shall be sold in California which by taper test will flash at any temperature below 110°.

If this law goes into effect, it will force from business every refinery in California which manufactures illuminating oil.

It will give Eastern oil an absolute monopoly of the business.

It will effect the Standard Oil company in two ways. First it will not allow the Pacific Coast Oil company, which is a branch of the Standard Oil, to sell any of its products in this State, but will compel it either to export the kerosene it manufactures to foreign countries or sell it outside the boundaries of California. The fire test of California kerosene ought not to be higher than 110°.

It will benefit the Standard Oil company by giving it a monopoly or the sale of its Eastern product in California and will enable it to sell it at a greatly increased price as the Eastern oil will have no competition.

The Burgess bill should be killed.

If any test of kerosene shall be insisted upon, it shall be that provided by the Assembly bill number 410, introduced by Assemblyman Duryea, or the Senate bill number 225 introduced by Senator Ralston. These bills are identical and would be satisfactory to the refiners of California provided these two changes were made; first the clause which reads, "No kerosene or coal oil shall be manufactured, sold, offered or exposed for sale which will not stand a fire test of 120° Fahrenheit at barometric pressure of 29.92." This should be changed so that it would read "110° Fahrenheit." This will allow our California refineries to manufacture a safe and satisfactory quality of kerosene.

The other change which should be made is in the clause which provides for a flash test for fuel oil of 150°. If this is changed so as to read at 110°, the bill will be satisfactory to the producers of fuel oil in every district. As a matter of fact this clause was apparently hitched onto the bill as a rider, and could be dispensed with entirely.

It would seem that some people who obviously do not understand the oil industry are determined to have some bill passed which will cripple the oil business of California. We cannot understand what motives should influence these people, but we sincerely hope that the legislators in Sacramento who represent the different oil districts of California, will see to it that the oil business of this State is protected and that the welfare of a great and growing industry is not jeopardized by those who if they are not influenced by mercenary motives are certainly ignorant of the requirements and necessities of the oil producers and refiners as well as of the oil consuming public.

On February 12th the Mexican Petroleum Company levied another assessment of three cents a share on the

stock of the corporation, payable

February 14th.

This is taking action with a vengeance.

This company has already expended about \$200,000 and no one as yet has been able to find out where the money went to and for what purpose it has been expended. The present is the second assessment within a year.

The company owns a vast tract of land in Mexico and its directors ride to and fro from Mexico and the east in their private cars. About all they have apparently done thus far with the immense capital they have raised by the sale of stock and by assessment, has been to sink a few wells of small productive capacity in Mexico.

It is certainly time that the stockholders force their directors to give an account before they yield up their coin in payment of this assessment.

We understand that much of this stock was sold for 50 cents a share and upward in the east, but that the promoters of the enterprise have been unwilling to pay more than fifteen cents a share for stock which cost at least 50 cents.

Delinquent stock is to be sold at auction on April 9th, so it behooves holders of this stock to force the company to an accounting considerably before that date. The office of the company is in Los Angeles where considerable of the stock is held and we suggest that the Los Angeles stockholders get together and put some machinery in motion which shall result at least in a satisfactory statement of affairs before their stock is sold out.

The California Petroleum Miners' Association has

The accomplished Association much for the

oil industry of California. As a Bureau of Information it has sent out thousands of letters all over the world in answer to inquiries concerning different oil fields in operating and the companies the state, in them.

In its published Bulletins, circulated freely in this country and in Europe, it has so stated facts in regard to our oil industry and its possibilities that the market for our oil has largely increased, and large amounts of capital have been brought here for investment in the oil fields.

All this and much more it has accomplished, and much more would still be done were the Association more liberally supported. No salaries are paid its officers, and whatever has been received in the way of contributions has been expended entirely for the benefit of the oil industry in general.

Every producing oil company and every refinery in the state should be on its membership list, and if this were the case a fund would be available which would accomplish much in the way of necessary legislation, imparting desired information, and in various ways doing much practical good for the oil industry.

At Copenhagen a large number of vessels are being equipped with oil-burning apparatus.



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### FRHSNO.

Roadmaster Agee and his crew are now engaged in plowing and grading the streets in Sanger, preparatory to sprinkling them with oil. Their canvas covered stable is pitched within a block of the main street, close to their work. The roads between Sanger and Centerville have been graded and put in good condition, and work will continue as long as funds are available.

### KERN

The Four Oil company has declared a dividend of 1 cent per share, amounting to \$3,000 payable February 16th.

The Union Oil company is putting down twelve additional wells on the Claremont lease in the Kern River district.

At the Kern River field the Monte Cristo Oil company has its wells, Nos. 48 and 49, now at a depth of 600 feet and No. 50 at 400 feet.

The Associated Oil company has increased its loading rack at the Kern River field from a capacity of twenty-six to a capacity of fifty cars.

The Sedalia and California well, No 5, at Sunset, is proving to be

one of the heaviest producers in Kern county. The well is doing easily 600 barrels a day.

The Alameda Company, located near the Diamond at Sunset, has begun work on well No. 2, the derrick is up for No. 3, and the lumber is on the ground for No. 4.

A patent for the southwest quarter of section 1, 11-24, the property of the Pittsburg and Maricopa Oil companies, has been received from Washington.

Based on the price paid for Peerless stock on the California Oil and Stock exchange the valuation of the company's property in the Kern River field is \$1,500,000.

The El Dorado Oil company will have a stockholders' meeting on Monday, March 2nd, elect new officers and transact such other business as may properly come before the meeting.

J. W. Jameson has commenced a suit against R. L. Peeler to declare a lease for section 24, township 32, range 23 east, forfeited on the ground that the defendant has not complied with the terms of the lease.

The Potomac company, on 29, 28 28, will soon begin drilling two additional wells. There are now

eight wells on the lease and this company has, with its Summerland and Los Angeles product, a daily output of 500 barrels.

The Lucky Boy Oil company has purchased the SE 1/4 of 31, 32-24, Sunset, from the Pittsburg, and has sold forty acres of it to W. I. McIntosh, who in turn sold it to an Eastern syndicate, who will develop it immediately.

The Southwestern Oil Refining company is making rapid progress on its refinery in Kern River and will be in operation by June 1st. It will have a capacity in the beginning of 600 barrels and this will be increased later to 1,200 barrels.

The McKittrick Oil company is now shipping two cars of oil daily and hopes to increase the shipments shortly. The company experienced considerable trouble in casing off the water in its best producers, but the difficulty has been overcome and a steady stream of oil is now being pumped.

E. Denicke, Secretary and General Manager of the California Fortune Oil Company at Sunset, is in the Kern River field inspecting the power plants and shipping facilities of the Imperial, Central Point, Peerless and other prominent shipping companies. The California Fortune will be the largest shipper from the Sunset field for some time to come. It is expected that the eight inch pipe line to that property will be in operation within sixty days.

The California Consolidated Oil Fields company, the new and powerful company that has taken over the Sunset properties of Jewett & Blodgett, is a corpora-

tion formed under the laws of Maine, and has a paid up capital stock of \$4,500,000. The work of building the line from Sunset into the Midway field will be pushed to completion as rapidly as possible, and ample storage tanks will be built at the Sunset terminal. A telephone system will also be installed, and the water distributing system enlarged and extended. Much development work is in contemplation, and it is believed that with transportation facilities provided, all producers in the field will be stimulated to renewed activity. Orders for the pipe will be placed at once and there will be no let up until a line is built from Sunset station up into the Midway. The pipe will be ten inches in diameter at the station and branches will be run to every lease where there is a production. It is estimated that this will cost not less than \$150,000. Five 35,000-gallon tanks will be erected at once, and more will be added as fast as needed. The new company will be in the field to either buy or store oil for all who have a production.

### NEVADA.

E. A. Williams, from Elko, Nevada, reports progress on the movement to develop the prospective oil fields of that locality. The company in which he is interested has the deepest prospect in that locality—about 600 feet, and no discovery of any consequence has yet been made. The formation is a shale and sandstone and is similar to that in which a high grade product has been found. A number of rigs are drilling in the same field and the country is staked off for miles.

# HALFMOON BAY OIL FIELD.

The UNITED STATES INVESTOR'S Staff Correspondent recently visited this field, and his report will be found in that publication.

**OIL.** The highest grade Refining Oil ever found on the Pacific Coast; 50° to 55° gravity.

**TRANSPORTATION.** Tide water, 35 miles from San Francisco, the Oil and Commercial Metropolis of the Coast.

**MARKET.** A refinery at Halfmoon Bay buys all the oil, and makes the highest grade Gasoline, Benzine and Kerosene West of the Rocky Mountains.

**PRICE.** Lowest price ever paid for oil from this field was \$1.50 per barrel at the well; highest price \$3.40.

The oil in the Wisconsin well (just brought in) shot 100 feet above the derrick. The PAXTON Company struck first oil strata at 600 feet. The ILLINOIS Company at 700 feet passed through two light oil strata. Both these Companies only a few hundred feet from flowing well of Wisconsin Company, will get good flowing wells when deeper sands are penetrated. The DUCHESS Company derives profit from royalty of developing companies, and will begin drilling in a short time. These four companies control 2,000 acres of the best oil land in Halfmoon Bay oil field, and over 40,000 acres in other fields.

THE DEBENTURE SURETY COMPANY holds 900,000 shares of stock of the four Companies as a Trust Fund. If any Company fails, we as Trustee, will cancel its stock and issue to its stockholders from the Trust Fund, the stock of the successful companies that absolutely protect investors against loss. Stock is accompanied by a DEBENTURE CONTRACT THAT GUARANTEES PARTICIPATION IN AND PROTECTION UNDER THE TRUST FUND PLAN.

## Money Received from the Sale of Stock is used for Development work.

We issue semi-annual, financial statements to stockholders, also monthly statements on request. Stockholders are informed of progress made, whether favorable or unfavorable.

## Every one of these Companies will be Liberal Dividend Payers.

The WISCONSIN Company's stock alone is worth double the price asked; it has a flowing well. We sacrifice a few thousand shares to quickly raise cash to drill more wells. ITS PRESENT OIL WILL BE SOLD FOR THE PAYMENT OF DIVIDENDS.

Stockholders of our Companies who came to the Coast and investigated have gone on record as follows: (We could give scores of others, space forbids.)

"I examined the Company's books and papers, everything legitimate and as represented. They have a first class property."

Joseph Boschert, La Crosse, Wis. (Banker and Mayor.)

"The management is honest and capable, the property as represented, and we believe first-class."

J. W. Cass, Madison, Wis.

J. F. Bohling, Poynette, Wis.

Wm. K. Mackenzie, Portage City, Wis.

After investigation, these gentlemen bought \$2,000 additional stock.

"I know your business is all right for I have looked you up. I send you \$1,000 for more stock."

H. S. Payn, La Crosse, Wis.

"I spent two weeks investigating one of the Companies. Every dollar is honestly handled."

N. E. Stevens, Editor Paxton Record, Paxton, Ill.

"I was over the oil fields for a week. The men who handle the property are honest and practical. I am more than satisfied."

J. C. Kirkpatrick, Clarence, Ill.

"First-class business proposition in every particular."

C. W. Dickinson, La Crosse, Wis.

"I believe your officers are honest and capable."

A. B. Melville, Chicago, Ill. (Dean Chicago Law School.)

"Honest management, by business men. Stockholders will realize handsomely upon their investments. Halfmoon Bay produces the highest priced oil on the Coast."

R. R. Dorr, New York Life Bldg, St. Paul, Minn.

"Management first-class, oil lands best in the field. Invested my surplus cash in stock, so did my friends. Halfmoon Bay will make many fortunes. Highest grade oil I ever saw."

J. E. Root, Pacific Grove, Calif.

A prominent Physician of La Crosse, Wis., spent several days in the field, and wired a friend as follows: Feb. 9, '03—"Oil well fine, getting better every day. There is a fortune in it." To the second party he wired: "Take one hundred thousand shares if you can carry that much and get it."

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## SAN LUIS OBISPO.

The Union Pacific Oil Company, having 520 acres, have raised the money to sink a well on 21, 30-21. This territory is called the Carisa oil district. One well, the Bonanza, is down 600 feet. Oil seepages are abundant in this vicinity. The oil is said to be of 26 gravity. Oil is expected at 800 feet. The Union Pacific will commence drilling in about two weeks. The rig is engaged. A 16-inch well will be started.

## SANTA BARBARA.

A new rotary rig has been installed on the property of the Western Union Oil company at Careaga.

The Union Oil Company of Lompoc has struck oil in its well on the Purisima ranch. A depth of 2000 feet has been reached and the oil is now within 100 feet of the top of the pipe. The company has decided to continue drilling, as the shale formation continues.

The Ortega well of the Crescent Oil company is now 900 feet deep with 11½ casing. Work has temporarily ceased on this well on account of the drillers being obliged to complete their contract on the deep asphalt well on the Higgins tract. When this latter well is completed, the work on the Ortega well will be resumed.

The Columbian Oil and Refining company is now working continuously in refining oil in their extensive plant at Carpinteria. A new superintendent, Mr. Satler, has been engaged and the company is now very busy filling orders for the varied products of their refinery, which are coming from all quarters, even from Europe.

Although no official confirmation can be obtained, from a reliable source the Santa Barbara Press says the details of another important oil deal just consummated in the field are secured. By the transaction, the Western Union Oil company is said to have acquired an option on 50,000 acres of land, part of which is in the Purisima ranch, and the balance on adjoining property within the limits of the prospective oil belt. It is also announced that the Lompoc Oil company has refused the offer of \$120,000 recently made for its holdings, and that the company is now preparing to sink its well deeper where the indications leave no doubt as to the presence of oil.

The finding of oil, it being the first of the real stuff to be uncovered in that territory, is drawing a great deal of attention to the new field, and the excitement in Lompoc is more intense than ever. The Lompoc company has a well down several hundred feet, but suspended operations on account of an inability to get a further supply of fuel, owing to the washing of the roads between their well and Carreaga station. The well is about a mile and a half distant from the Union well, in an adjoining canyon, and the stockholders are confident of success. H. J. Doulton, who owns several drilling rigs, has gone to Lompoc to secure contracts for the drilling of other wells, and it is expected that several new holes will be started within a short time.

Work has been temporarily suspended on the deep well of the

Crescent Oil company on Ortega hill. The drillers have gone to Carpinteria to resume work on the Higgins lease. The Summerland Advance-Courier says: A couple of months ago, while the drillers on the Summerland well were endeavoring to lift the 11½ casing in order to underream, the string of casing parted, leaving one length in the hole. A fishing spear was fastened to the length of casing, but the drillers were unable to budge it. As the spear is so constructed that it can not let go once it is fastened inside a pipe, this left a length of casing, a fishing spear and a string of tools weighing about 900 pounds in the hole. A line of 9½ casing was then let down and fastened to the jars of the tools on the fishing spear, a stream of water turned into the well, and every effort made to start them, but with scant success; although the obstruction has been moved to some extent since operations began. Mr. Cook states that his contract requires him to do certain amount of work on the Carpinteria lease, when he will return to the Summerland well and stay with it till he moves the tools.

Much activity is now prevailing at the refinery of the Columbian Oil company at Carpinteria. Recently this company shipped fifty-one barrels of "B" grade asphaltum to London. The total shipment was 23,921 pounds. This shipment is the first of a number of regular shipments which will be made by this company from now on from the refinery at Carpinteria to different ports in England. The asphaltum business for this company is al-

ready assuming very large proportions, so large in fact that the company is unable to obtain the required amount of oil from Summerland and has bought the product of two wells at Newhall, operated by the Alpine company. The wells are located two and one-half miles from Newhall and the Columbian company has erected tankage and pumping stations at the railroad and have leased a siding from the railroad company so that they are prepared to make regular shipments from Newhall to the refinery at Carpinteria. The company is now at work on a large hand dug shaft on the Ashley tract opposite the refinery at Carpinteria. At thirty feet the men struck asphaltum which is now coming into the shaft so abundantly as to prove very troublesome so far as making quick progress is concerned. The deep well on the Higgins tract is now over 1,300 feet deep and work is progressing steadily.

A correspondent of the Santa Barbara Press writes from Lompoc: "The secret is out at last. The Union Oil Company has struck it, and struck it rich. For several weeks parties here who are interested in oil have suspected that the Union might have struck something good. Work was stopped on the well and all operations ceased for some time. Within the past few days, however, work has been resumed and it is no longer a secret that the Union has struck it rich. To-day they were still drilling, with the hole down about 1,900 feet and with the oil within about fifty feet of the surface. The depth of the hole is of course partly guess

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Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

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work, as the Union, like other oil companies, is not giving out much information, but parties who are posted say that it is in that neighborhood. The oil is said to be of a very high gravity and equal if not superior to any produced in the State. As to the productiveness of the well it is of course purely a matter of conjecture; but one of the company's experts says that with a little more work they expect to develop at least a 1000-barrel well. Things are getting to be very lively up here Oil and real estate men are coming in from all parts of the country; and it looks now as though Lompoc was strictly in it. The Union well is about seven miles from the town of Lompoc, on what is known as the Purisima ranch."

#### VENTURA.

The Live Oak Company is down about 150 feet in their well on the Ferndale Ranch and are encouraged by a slight show of oil.

The well being drilled by J. P. Fillmore on the Balcom lease is now down about 1350 feet in 5" casing. Work is progressing very slowly here on account of inability to shut off the water.

The new Weldon Oil Company is making good progress on their well on the Hartman Ranch. The work is in charge of Mr. Lorbeer who has a contract for drilling the well. They have reached a depth of about 200 feet.

The Sulphur Mountain Petroleum Company are still persevering with their well. They are now somewhat over 1800 feet deep and have encouraging prospects. They are at present shut down waiting for their stem to be repaired.

It is reported that two strings of tools will soon be started in Lyon Canyon. Two wells have been drilled on this lease, one of which was abandoned on account of being plugged with a string of tools, although oil had just been reached and the other was completed but none was put on the pump until recently. It will be used to furnish fuel for the new wells about to be started --Ventura Free Press.

#### Some Rules for Investors.

Advising investors is at best a thankless task and Solomon himself could not have drawn up a set of rules that would enable a man to tell a worthless from a reputable company. These rules from a Western exchange may, however, help some man to save his money:

Don't expect too much for your money.

Don't expect that you are getting a dollar for 10 cents when you buy a share of stock in a development company.

Don't think a man is a philanthropist who is offering an absolute guar-

antee against loss in a mining investment

Don't invest any money that you cannot wait for or do without easily, if necessary

Don't take a flyer in a company concerning whose management you know nothing thinking the lightning may strike and you may make a great deal of money. You are just as apt to be struck by lightning in a case of this kind as you are to make a winning

Don't disregard the ordinary rules of business judgment, and think that because you do not understand mining that none of these rules apply, and do not lose sight of the fact that while mining is legitimate and does yield greater profits, properly conducted than any other enterprise, yet the management of any company or any enterprise, is a vital factor in its value. Many good mines have been wrecked by poor management and many poor mines have been made to pay handsomely by good, conservative management; hence always scrutinize the management of a company. Do not forget that you are obliged to take a business risk in any enterprise, hence the man who assures you that his mining enterprise has no risk in it is trying to sell you a "gold brick."

Do not forget that the only men who ever become victims of the confidence games are those who are trying to get something for nothing.

To sum up the whole situation, as an introductory proposition, it is well to be conservative and yet liberal; to be enterprising, but not rash; to avoid visionary dreams of Monte Cristo wealth; but do expect and demand a straight business accounting concerning the operations of the company in which you invest.

Do understand that you are taking a fair business risk, and that you are willing to do so, and wait for the result.

Finally, remember that if you wait ten years and get a good interest in a dividend-paying mine, there is no more permanent and satisfying investment than mining shares.—Exchange.

Reports from the Norwegian Consolidated (Gold) Mining Co in Tuolumne county, and located on the Mother Lode, are very encouraging. Within a very short time the development work now being done will result in plenty of good ore, which will mean dividends to stockholders.

### The American Fancier and Breeder

Gives the best methods of Breeding and Raising. 25c per year.

### AMERICAN POULTRY FARM

Prize-winning strains. 25 years' experience. Stock and eggs for sale.

F. M. MUNGER & SONS,  
DeKalb, Ill.

## Mt. Hamilton Land and Oil Co.

Owens oil territory in the Coalinga and Kreyenhagen Oil Districts. Is now down over 400 feet on its first well at Alcalde, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 560 acres.

Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

Office 6, 7, 8 and 9 Rea Building, - - SAN JOSE, CALA.

## THE COLUMBIAN OIL, ASPHALT & REFINING CO.

CARPINTERIA SANTA BARBARA COUNTY CALIFORNIA.

Capital Stock, \$1,000,000; Par Value of Shares, 10 Cents Each; Fully Paid and Non-Assessable. \$750,000 Worth in Stock in the Treasury.

#### OFFICERS AND DIRECTORS:

President: CLARENCE W. AVERY, Oil Expert, Carpinteria, Cal.  
Secretary: HERBERT GATES, Electrical Engineer, Oakland, Cal.  
P. M. Executive: ATTORNEY, Oakland, California  
Vice President: FRANK P. TITUS, Capitalist, Oakland, Cal.  
Treasurer: JOHN R. SCOTLAND, Oil Operator and Mining Engineer, Oakland, Cal.  
J. W. WALKER, Phoenix, Arizona



PHOTOGRAPHIC VIEW OF A PART OF THE COLUMBIAN COMPANY'S IMMENSE PLANT.

Fabulous Wealth in Asphaltum. Deposits Unequaled in Extent and Richness in the United States. A Modern Refinery Running Day and Night Turning Out Refined Asphaltum and its many By-Products, is the Brief Story of this Commercial Proposition now being Financed by Eastern Capitalist.

STOCK ONLY 4 1-2 CENTS PER SHARE 45 DOLLARS PER THOUSAND

DIVIDENDS IN SIGHT—

GREAT PROFITS ASSURED—

AN INVESTMENT FOR THE PEOPLE—

Write at once for reports, subscription blanks, photographs, etc., and make all remittances for stock payable to the company's fiscal agents.

THE AMERICAN INVESTMENT CO.

2 Kilby St., Boston, Mass.

## Drilling Rig And Casing for Sale Cheap.....

Oil Well Supply Company's Drilling Outfit, Complete, With 23-Horse Power Engine and New Cable.

700 feet of 11 5-8 Casing,  
1,064 feet of 8-inch drive-  
pipe, Weighing 28.18 per  
foot. All as Good as  
New. For sale at a  
Bargain.

For Further Particulars, Address

J. R. McDONALD

Secretary Mt. Oso Oil Co.,

GRAYSON, - - - CAL.



### Air Pumps.

The air pressure devices of the Baku oil fields require still more important improvements. The apparatus itself must accomplish 35 percent of useful work if the pump with compressed air would equal the ordinary pump. Moreover, the compressor must be able to work with the column of fluid in the well at any height if it is to take the place of the old system.

### Oil Duty in India.

A custom's circular has been issued by the government of India, under which the import duty in India on petroleum, having its flashing point at or above 150° F., is reduced to 5 percent ad valorem, provided it is proved to the satisfaction of the customs collector that it is intended to be used exclusively as fuel.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, February 18:

#### CARIBOU.

500 at \$ 80 (S 3).....	\$ 400 00
500 at 82½.....	412 00
200 at 85.....	170 00
100 at 87½.....	87 50
400 at 90.....	360 00

#### CENTRAL POINT CON.

500 at 80.....	400 00
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#### CHICAGO CRUDE.

900 at 25.....	225 00
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#### CLAIRMONT.

40 at 20.....	8 00
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#### FAUNA.

1,500 at 10.....	150 00
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#### HANFORD.

1 at 145 00.....	145 00
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#### HOME OIL.

1,125 at 3 30.....	3,712 50
100 at 3 25.....	325 00

#### INDEPENDENCE.

7,400 at 12.....	888 00
10,500 at 13.....	1,365 00
9,500 at 14.....	1,330 00
5 at 13 (B 90).....	650 00
3 at 14 (B 90).....	420 00
4,000 at 15 (B 90).....	600 00
500 at 14 (C).....	70 00

#### JUNCTION.

4,250 at 11.....	467 50
3,000 at 12.....	350 00
4,900 at 13.....	637 00
4,400 at 14.....	616 00
1,300 at 15.....	195 00

#### KERN.

125 at 5 50.....	687 50
25 at 5 25.....	131 25

#### KERN RIVER OIL.

225 at 14 00.....	3,150 00
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#### LION.

14,500 at 09.....	1,305 00
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#### MONARCH.

100 at 24.....	24 00
100 at 26.....	26 00
200 at 30.....	60 00
200 at 31.....	62 00
200 at 34.....	68 00

#### MONTE CRISTO.

200 at 1 34½.....	265 00
150 at 1 35.....	202 50
100 at 1 37½.....	137 50

#### OCCIDENTAL OIL.

1,600 at 18.....	288 00
200 at 19.....	38 00

#### OIL CITY PETROLEUM.

2,000 at 25.....	500 00
3,000 at 26.....	780 00
300 at 27.....	81 00
1,200 at 28.....	336 00
7,300 at 30.....	2,190 00
6,000 at 31.....	1,860 00
500 at 32 (B 30).....	160 00
900 at 32.....	288 00

### PEERLESS.

5 at 14 62½.....	73 12
510 at 15 00.....	7,650 00

### PITTSBURG OIL.

1,000 at 20.....	200 00
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### REED CRUDE.

12,00 at 31.....	372 00
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### S. F. & MCKITTRICK OIL.

300 at 2 50.....	750 00
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### SAN JOAQUIN.

50 at 8 00.....	400 00
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### SENATOR.

850 at 70.....	595 00
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### SOVEREIGN.

2,500 at 41.....	1,025 00
2,200 at 42.....	1,344 00
1,200 at 43.....	516 00
1,000 at 44 (B 60).....	440 00
1,500 at 44.....	650 00
1,200 at 45.....	540 00
1,000 at 46 (B 90).....	460 00

### STERLING.

100 at 3 05.....	305 00
1,050 at 3 10.....	3,286 00
650 at 3 15.....	2,047 00
400 at 3 20.....	1,280 00
600 at 3 25.....	1,950 00
400 at 3 30.....	1,320 00
300 at 3 35.....	1,005 00
200 at 3 15 (C).....	630 00
200 at 3 15 (S 90).....	630 00
500 at 3 20 (B 10).....	1,600 00
500 at 3 25 (B 90).....	1,625 00
100 at 3 30 (S 30).....	330 00
500 at 3 30 (B 90).....	1,650 00
1,000 at 3 30 (B 60).....	3,300 00
200 at 3 30 (B 10).....	660 00
700 at 3 40.....	2,380 00
100 at 3 40 (B 5).....	340 00
700 at 3 45.....	2,415 00
700 at 3 50.....	2,450 00
300 at 3 60.....	1,080 00

### TWENTY-EIGHT.

100 at 2 90.....	290 00
50 at 2 95.....	147 50
124 at 3 00.....	372 00
100 at 3 05.....	305 00
450 at 3 10.....	1,395 00
200 at 3 15.....	630 00
236 at 3 25.....	763 00
450 at 3 35.....	1,507 00
200 at 3 40.....	680 00
100 at 3 05 (B 30).....	305 00

129,476 Shares Amount \$78,325.87

### ALAMEDA ARTESIANS (5's).

3,000 at \$ 1 04¼.....	\$ 3,007 50
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### NORTHERN CAL. POWER CO.

700 at 9 50.....	6,750 00
100 at 9 75.....	975 00
350 at 10 00.....	3,500 00

### OAKLAND WATER (5's).

3,000 at 104¼.....	3,007 50
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### PACIFIC ELECTRICS (5's).

10,000 at 112¾.....	11,237 50
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17,150 Shares Amount \$28,477.50

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo.....	.30	
Aztec.....	.80	1.00
Bear Flag.....	.05	.11
California Standard.....	.16	.19
Caribou.....	.90	1.00
Central Point Con.....		.85
Chicago Crude.....	.23	.25
Clairmont.....	.22	.30
Fauna.....	.14	
Four.....	.60	.63
Hanford.....	130.00	140.00
Home.....	3.25	3.35
Imperial.....	18.25	
Independence.....	.13	.15
Junction.....	.10	.16
Kern.....	5.25	5.50
Kern River.....	14.50	
Lion.....	.08	.09
Monarch of Arizona.....	.33	.35
Monte Cristo.....	1.37½	1.50
Occidental of West Va.....	.17	.18
Oil City Petroleum.....	.32	.33
Peerless.....	14.50	15.25
Reed Crude.....	.30	.32
S. F. & McKittrick.....	2.50	
San Joaquin O. & D.....		
Sovereign.....	.43	.45
Sterling.....	3.45	3.50
Thirty-three.....	9.00	10.00
Twenty-eight.....	3.00	3.15
Union.....		70.00
United-Petroleum.....	117.00	120.00
West Shore.....	3.00	5.00
Wolverine.....	.55	.65

### J. B. HILL

Member Producers' Oil Exchange  
Mills Building, Sixth Floor, Room 9.  
Telephone, John 946  
Member of Producers' Oil Exchange and of San Francisco Stock and Exchange Board

## GOLD!

Always at Par.

### Hudson Gold Mining Co.

Owens rich gold properties in Arizona; active work now in progress, to continue which stock is being sold at

## 10 CENTS A SHARE

Par Value \$1.00

Full Paid.

Absolutely Non-Assessable.

When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

W. G. Young & Co., Fiscal Agents,  
628-630 Laughlin Building,  
Los Angeles, Cal.

### Stock, Bond and Investment Syndicate

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Money Loaned on Stocks,  
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R. L. CHENEY, Secretary  
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318 PINE STREET, Room 5

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Refiners of Crude Petroleum  
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### APPLICATION FOR CHANGE OF NAME.

In the Superior Court of the City and County of San Francisco, State of California. No. 34083, Department No. 3.  
In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.  
To the Honorable, the Superior Court of the State of California in and for the

City and County of San Francisco:  
The above named Sinaloa Mining Company, a corporation, petitioner named herein, applies to the said Superior Court for an order changing the name Sinaloa Mining Company to Los Tecotes Gold Mining Company, and in that behalf aver and set out:

I.  
That the said Sinaloa Mining Company is a corporation duly incorporated and organized and existing under and by virtue of the laws of the State of California; that the date of the formation of your said petitioner was the 26th day of May, 1885, and the said Sinaloa Mining Company is the present name of your petitioner, and the name to which it is proposed to change the said name of the Sinaloa Mining Company is the Los Tecotes Gold Mining Company; that the principal business of the Sinaloa Mining Company is transacted in the City and County of San Francisco, State of California, and its Articles of Incorporation are duly filed in the office of the County Clerk of said City and County of San Francisco.

II.  
That the capital stock of said Sinaloa Mining Company consists of Ten Million Dollars (\$10,000,000), divided into One Hundred Thousand shares (100,000) of the par value of One Hundred Dollars (\$100.00) each and of which capital stock twenty-five thousand (25,000) shares have been issued and fully paid up.

III.  
That the directors of said Sinaloa Mining Company are Geo. S. Montgomery, A. W. Dennett, S. R. Break, M. E. Randolph and R. H. Cross, and at a meeting of the said Board of Directors, duly and regularly held on the 2nd day of February, 1903, at the place of business of the said Sinaloa Mining Company, in the City and County of San Francisco, the said directors duly and regularly resolved and authorized the President and Secretary of the said Sinaloa Mining Company to file with the Clerk of the Superior Court of the City and County of San Francisco, State of California, this petition and application to change the name of said Sinaloa Mining Company to that of the Los Tecotes Gold Mining Company, the said petition to be signed by a majority of the said Board of Directors.

IV.  
That the members of the Board of Directors of said Sinaloa Mining Company are owners of a large number of shares of the capital stock of said corporation, and together with nearly all, if not all, the stockholders of the said Sinaloa Mining Company, earnestly desire that its name be changed to that of the Los Tecotes Gold Mining Company, for the reasons hereinafter set forth, to-wit:

That the works and mines of said Sinaloa Mining Company are situated in the State of Sinaloa, United States of Mexico, and consist chiefly of the mining property known as "Los Tecotes Mine," which has been worked for centuries and known by the aboriginals as Los Tecotes Mine; that the said Sinaloa Mining Company is known as and commonly called in the State of Sinaloa "Los Tecotes Mining Company."

That the name of Sinaloa Mining Company is too general and the property of the company is confused with that of other companies bearing similar names.

That for the above and other reasons it would be for the best interests of said Sinaloa Mining Company and its business would be greatly improved if the change of name herein applied for be effected.

V.  
That there is no association or corporation in this State or elsewhere using the name of Los Tecotes Gold Mining Company to the best of petitioner's information or belief.

Wherefore your petitioner prays that the name of said corporation, to-wit—Sinaloa Mining Company, be changed to Los Tecotes Gold Mining Company, and that a time be fixed as provided by law for the hearing of this application.

SINALOA MINING COMPANY,

(A Corporation)

By GEO. S. MONTGOMERY,

President.

S. R. BREAK,

Secretary.

GEO. S. MONTGOMERY,

A. W. DENNETT,

M. E. RANDOLPH,

S. R. BREAK,

R. H. CROSS,

Constituting a majority of the Board of Directors of the Sinaloa Mining Company, State of California, City and County of San Francisco—ss.

S. R. Break first being duly sworn deposes and says:  
That he is an officer, to-wit, the Secretary of the Sinaloa Mining Company, a corporation, petitioner herein; that he has read the foregoing petition and application and knows the contents thereof; that the same is true to his own knowledge except as to the matters which are therein stated on his information and belief, and that as to those matters that he believes it to be true.

S. R. BREAK.

Subscribed and sworn to before me this 2nd day of February, 1903.

[Seal] CLAY P. GOODING,  
Notary Public in and for the City and County of San Francisco, State of California.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk, by H. H. St. Legier, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco.

In the Superior Court of the City and County of San Francisco, State of California. No. 34083 Dept. No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company, which petition or application was filed herein on February 3rd, 1903, be heard at ten o'clock A. M. on the 9th day of March, 1903, by the said Superior Court in Department No. 3 thereof.

It is further ordered that a copy of such petition or application be published for four (4) successive weeks prior to the date of said hearing in "Pacific Oil Reporter," a newspaper printed in the City and County of San Francisco.

Dated February 3rd, 1903.

Presiding Judge of the Superior Court. Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk, by J. J. Greib, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco, California.



### Rapid Drilling.

Speaking of exceptional time made by L. M. Stephenson, driller, and F. Welker, tool dresser, on a well on the Ocean farm, near Oil City, the Derrick of that city says: "The men were on tour twelve hours, and during that period drilled through forty-five feet of first sand, 100 feet of shale and fifty-five feet of second sand, or 170 feet in all. The well is owned by Simpson & Goldstein, and W. D. Stephenson is the contractor. The figures as to measurements and time will be verified by J. C. Duncan, farm boss for the owners."

### Java Petroleum.

Recent investigation of Java petroleum shows it to be somewhat similar to the product from Sumatra. A recent analysis by an English authority gave the following results:

Specific gravity at 15° C ..... 0.799  
Flash point, by Abel-Pensky ..... 11° C.

#### FRACTIONAL DISTILLATION.

Number of fraction.	Boiling points.	Per cent.	Sp. Gr.
	Up to 130	16.1	0.750
1. (Kerosene)	130-150	13.4	0.767
2. (Kerosene)	150-170	11.1	0.779
3. (Kerosene)	170-190	8.7	0.791
4. (Kerosene)	190-210	8.3	0.799
5. (Kerosene)	210-230	8.6	0.814
6. (Kerosene)	230-250	8.6	0.827
7. (Kerosene)	250-270	8.6	0.841
8. (Kerosene)	270-290	7.5	0.851
Residue	Above 290	9.1	0.861

The large percentage of naphtha in this kerosene fully explains its low flash point.

The Baku News reports that Mr. S. Asadullaieff intends taking up the business of oil exportation into the interior of Russia. He proposes to erect reservoirs in all the chief towns on the Volga (from Astrachan to Yaroslavl) and in Moscow and Warsaw, about fifty in all. With this object in view Mr. Asadullaieff has set out for Moscow.

## CALIFORNIA LIMITED

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An ideal train  
for those  
who seek the  
best.

### SANTA FE TRAINS

Leave Market-Street Ferry Depot.

	Daily Local	Daily Lim'd	Local Daily	Overl'd Daily
Lv. S. Fran.	8:00 a.	9:30 a.	4:20 p.	8:00 p.
Ar. St'kton	11:10 a.	12:08 p.	7:30 p.	11:15 p.
" Merced	1:20 p.	1:40 p.	.....	1:28 p.
" Fresno	3:20 p.	3:00 p.	.....	3:15 a.
" Hanford	5:00 p.	3:51 p.	.....	7:50 a.
" Visalia	4:48 p.	.....	.....	5:00 a.
" B'kfield	7:10 p.	5:50 p.	.....	7:35 a.
" Kan. C.	.....	2:31 p.	.....	8:02 a.
" Chicago	.....	2:25 p.	.....	8:47 p.

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Office—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.

### CVONET PETROLEUM CO

Capital.....\$250,000  
Treasury stock.....\$250,000  
Location—Pismo county.  
Directors—Chas. L. Fair, president, Edith W. Parson, vice-president, Chas. A. Lee, treasurer, John C. McKirby, secretary.  
Office—361 Parrott Building.  
Tel.—South 124.

### STANDARD ROCK OIL COMPANY.

Capital.....\$250,000  
Treasury stock.....\$250,000  
Location: 60 acres leased; 600 acres oil land in McKittick; 80 acres owned in Coalinga near Home Oil company, Fresno; 150 acres owned adjoining oil well in Napa valley.  
Leased 6000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
Officers: R. A. Falkenberg, president, M. J. Henley, secretary, B. B. Clawson, R. P. Chase, Col. E. J. Hays.  
Office: 472-76 Parrott Building, 335 Market Street San Francisco Cal.

### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 26, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (\$10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, to the present amount of its capital stock, to the sum of five million (\$5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors,  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

## NEARLY 200,000



### Smith-Premier Typewriters

Sold Within a Few Years.

97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

The Smith Premier Typewriter is used exclusively by the Telegraph Department and the Sunset Freight Department of the Southern Pacific Railroad Company.  
Western Union and other Telegraphers use 115 Smith Premiers.  
Heald's Business College uses 32 Smith Premiers.  
San Francisco Call uses 23 Smith Premiers.  
Oakland Public Schools use 11 Smith Premiers.  
Pacific Hardware and Steel Company uses 21 Smith Premiers.  
The Viavi Company uses 10 Smith Premiers.  
California Wine Association uses 9 Smith Premiers.  
The Emporium Company uses 7 Smith Premiers.  
Gunnison, Booth & Barnett use 4 Smith Premiers.  
Descriptive Art Catalogue—Book on Touch Typewriting—No Charge

M. S. ALEXANDER L. E. ALEXANDER

### L. & M. ALEXANDER & CO.

EXCLUSIVE PACIFIC COAST DEALERS,  
110 Montgomery St. San Francisco.  
Branch Stores:  
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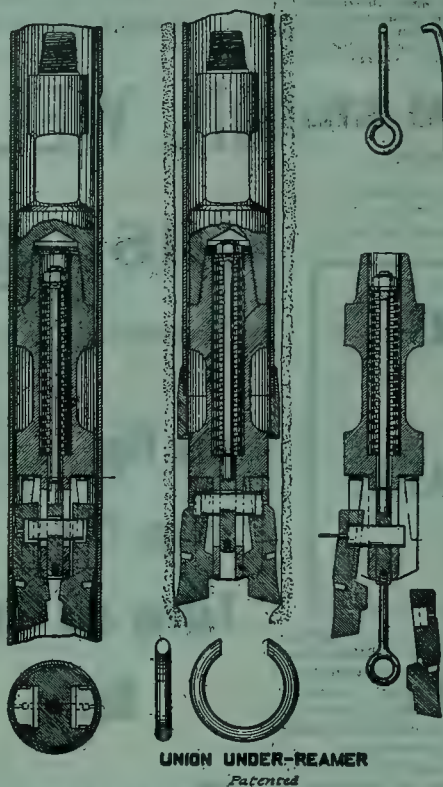
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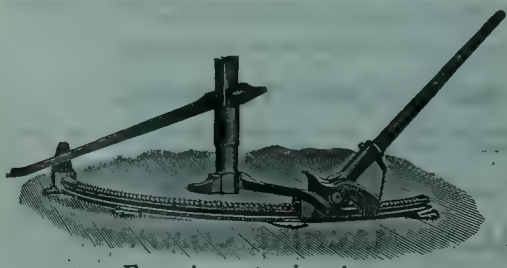
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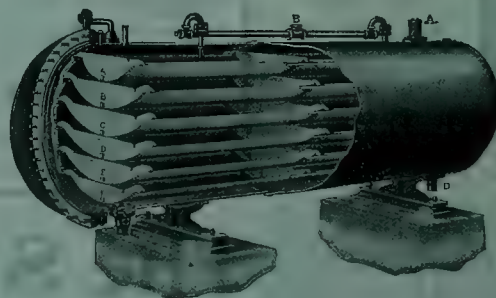
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 17.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 28, 1903.

Price 10 Cents.

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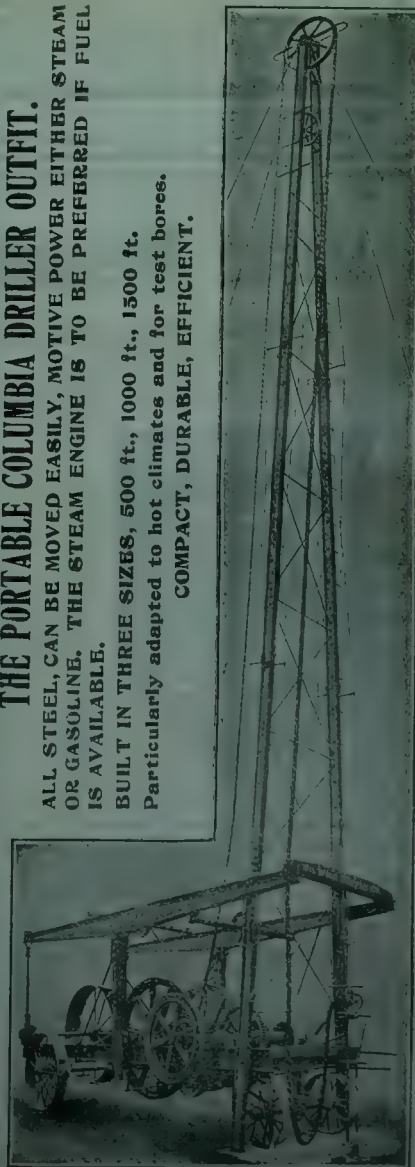
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We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

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of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

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Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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Adopted by the United States Government as the Standard for use in the army.

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If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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# PACIFIC OIL REPORTER

VOL. 4. No. 17.

SAN FRANCISCO, CAL., SATURDAY, FEBRUARY 28, 1903.

PRICE, TEN CENTS.

## A PROPHETIC ADDRESS.

**Speech of Hon. R. W. Gorrill at Bakersfield.  
Delivered in 1888.**

**Attention Called to the Enormous Deposits of Crude  
Petroleum which the Speaker Asserted, existed  
in What is Now the Kern, McKittrick  
and Sunset Oil Fields.**

On November 7th, 1888, an enthusiastic meeting of the citizens of Kern county was held at Mear's Opera House, Bakersfield, under the auspices of the Kern County Board of Trade, for the purpose of listening to addresses from a number of gentlemen prominently identified with the immigration interests of our State. The meeting was presided over by Mr. Celsus Brower, and speeches were made by A. R. Briggs, President of the State Immigration association, R. W. Gorrill, and at that time President of the Pacific Bridge company of San Francisco, and others.

At that time Mr. Gorrill was as familiar with geological science as he is to-day, and while not professing to be a geologist in the general acceptance of the term could read the page of nature like a book, and, on this account had been selected several times by the government as well as by private individuals and companies, to visit distant lands, and report as to the opportunities they presented for the development of minerals and oils.

Several speeches were made that night at Bakersfield which were fraught with predictions, many of which have proved true, of the yet uncovered richness and capabilities of the San Joaquin valley, but of the different speeches none attracted such attention, when published, contained truer prophecies of undeveloped resources than that made by R. W. Gorrill.

At about this time, or shortly after, Mr. Gorrill was one of a syndicate which agreed to put up \$200,000 for the purpose of drilling for oil in Kern county. The syndicate obtained control of 10,000 acres in what is now the Kern River Oil district, 10,000 acres in the present McKittrick district, and 5,000 acres in Sunset district. At that time these regions grew nothing but cactus and jack rabbits. The people of Kern county had no idea that underneath the barren desert surrounding their little town were millions upon

millions of barrels of crude petroleum which in a few years would make millionaires of poor men, and cause land that was worthless to be in demand at from \$1,000 to \$5,000 an acre.

That the enterprise of Mr. Gorrill in developing the oil fields of Kern county in 1888 was not pushed is no fault of his. He had his \$50,000 ready, but his partners disagreed, and the scheme failed to materialize; but Mr. Gorrill's



Excavation in a Surface Asphalt Deposit, McKittrick District,  
Showing Accumulation of Oil.

faith in the oil possibilities of the territory never wavered, and subsequent developments justified his belief.

The prediction made by Mr. Gorrill in 1888, that Kern would become noted for its oil and asphalt production; was, so far as we know, the first public utterance of the kind yet made regarding

the oil fields of Kern county, and portions of the speech are herewith reproduced to show that the prophecies uttered more than a dozen years ago have been and are being fulfilled.

For some time Mr. Gorrill has been operating in Colusa county and has spent over \$60,000 in so far unsuccessful attempts to find the main deposit of light oil which here and there seeps to the surface in old Colusa.

Undeterred by his experience in Colusa Mr. Gorrill is still undaunted in his determination to find a new and extensive oil field. He is backed by abundant capital, has practical as well as geological knowledge of the oil industry, and is even now on the hunt for a region where oil land can be secured.

Herewith is given a portion of the address delivered by Mr. Gorrill at Bakersfield fifteen years ago. It will be read with interest by every one who is connecte

once desert bloom forth with a tropical luxury.

It is true that you have done wonders. You have withstood all the hardships of the frontiersman; you have built your homes beside the clear streams which your handiwork has made to flow through the once arid plain and miasmatic swamp; and you may now think it hard to be called once more to come forth from those pleasant homes and go to work. But such is the case. The greatest glory a man can obtain is by the greatest good he can do to his fellow-men. And this being the case, I feel that you will excuse me for endeavoring to point out some of the advantages you have here in Kern county which may have escaped your attention.

There is another immense source of wealth in this county that has received little or no attention from you or anyone else, and that is the enormous beds of coal oil and its attributes. It seems strange to me that this deposit of wealth has lain here so long and that there has been so little done to bring it into the marts of the world, where there is such demand for it. I shall now tell you the exact location of this deposit, as I do not believe that one-half of you men know where it is, if you know that such a deposit exists. It is in township 30 south, range 22 east, and covers three square miles in this township; and in township 30 south, and range 21 east, there are sections 12 and 13 covered in like manner with coal oil, and far oozing out of the ground, and has been for years, until it has run over the plain, covering five square miles with asphaltum to an unknown depth; and all that has been done by most of you that have seen it is to keep out of it for fear you would get stuck in it.

Previous to 1866 Mr. Bond and Mr. Benoist commenced a well on the flat below the tar springs on the company's claims. At a depth of sixteen to eighteen feet, in raising the auger they turned it the wrong way and unscrewed and lost the bit, which accident stopped the work.

Now I do not think they showed much more energy than you have in buiding up this town.

In 1886 the Buena Vista company set a still, with a daily capacity of 300 gallons, near a large spring of good water three miles from the oil springs. The company attempted to sink a well for water in a more convenient location, but did not succeed in obtaining it. For thirty feet or more the formation was alternate layers of shale, sand and asphaltum, and below thirty feet was a three-foot layer of asphaltum, very difficult to penetrate, but no water; so it distinctly shows that those layers extend three miles on and beyond where they show on the top of the ground.

This oil belt, the largest on the Pacific slope, lies along a low range of hills for several miles north and south, most of the oil croppings, only from 200 to 500 feet above the level of the plains. There are numerous bubbling tar springs on the flat, from which liquid asphalt or oil has flowed out and covered several acres, in the form of glossy black asphaltum, and these springs are full of gas. This asphalt stream extends half a mile over the sandstone and to the valley below. The crude oil was taken from pits and shafts sunk from sixteen to eighteen feet deep. There were also several shallow pits or wells, which soon filled with oil and water. Three thousand to four thousand gallons of refined oil were produced. They generally ran off from 85 to 90 per cent from the charged still, when the residue would continue to run off from the tap while hot. The many difficulties met by the company caused the work to be stopped. Freight was high, \$60 to \$70 per ton to San Luis Obispo, and from \$15 to \$20 per ton from there to San Francisco. The nearest fuel or timber are the forests of the Santa Meta mountains, lying thirty miles south. From the time the company discontinued work nothing has been done to this locality.

The freight has been reduced from \$85 per ton, so now it could be delivered in San Francisco for \$30 per ton, and if the material was piped to this place which could be done for a small cost, it could be hauled to San Francisco for \$4 per ton.

When I was here a week ago or so I

directly or indirectly with the oil fields of Kern county:

MR. PRESIDENT, LADIES AND GENTLEMEN: It may seem strange to you to think that any person will have the effrontery to address you on the merits or demerits of your own town or county; to tell you old pioneers who have been here for the last twenty years and driven the wolf and grizzly from the plains to the mountain-top, and there fought over the game with the wild Indian; you who have turned this mighty river from its course and made it do your bidding, inasmuch as to make this



met Mr. Hamilton, the superintendent of the New Georgia company, who are at work there, and from him and other sources I found out that the new well just bored to a depth of 725 feet had a good flow of oil at that depth, and when he went to drive his pipe further down he struck gas so strong that it blew the plug out and blew oil and gravel over the top of the derrick, so it was dangerous to go near it for several days, and when he got it stopped the gas forced its way up through the 725 feet of hard material around the pipe, and is now escaping with a loud noise. And what kind of tools did this man have to work with? He picked up an old well-boring plant here and run it by a thrashing machine engine, and in the fire-box burned the asphaltum that lay around in such great amounts. Science has invented a way so as to make of this crude oil the best of fuel for many things. It forms the fuel for many steamers and for many large shops and manufacturing plants in San Francisco now, and if the supply were great enough many more would be run by it.

Pittsburg, in Pennsylvania, was saved by natural gas alone, and had not it been utilized most of that city would now be the home of rats. I had a good chance to see the effects in a country where gas and oil has been discovered two years ago. I was called on to go back to Bowling Green, Ohio, where I was born and spent my childhood days, to settle up my father's estate. Oil and gas had been found near it, and on my arrival home, and before I could get my supper, two real estate agents offered me \$1,000 per acre for the old homestead, in cash. And as I sat in the old home, and talked over the change with my step-mother—one of the best women that ever lived—and toasted my feet by the gas stove, I thought how when a boy I used to have to chop and split wood and carry enough in for the evening fire to run a locomotive, when I might have spent that time in play, and it made me mad; and to think again that but two short years before I sat in that house and recounted my failure to sell that same land for the pitiable price of \$50 per acre, to any one, and give any length of time on the notes, how different the times; and when the next morning I

went down town, what a change—that dull old sleepy town had changed entirely. The town oracle had left his dry-goods box and put up his jack-knife; the sleepy postmaster had his coat off, and for once in his life was at work. There was a rush of many feet, and most of them were strangers, not only to me but to the town. Over by the old weed-covered graveyard was being built a large building for the manufacture of glass, greater in capacity than all the glassworks on this coast; and over by the old duck-pond was another great glassworks. Beyond I saw a lot of men

there are not as good indications of gas there as there is within three miles of this place right up the river, and not one-thousandth part that there is within thirty miles of you. Now if the discovery there produced such results, where hard coal is but \$4 per ton and where wood is plentiful, what will it produce here, with this great San Joaquin valley at your door, and San Francisco without fuel within 314 miles of you? And this great valley and all its cities, how are they to be paved if not by this asphaltum, as it has proven to be the best material known to pave streets with?

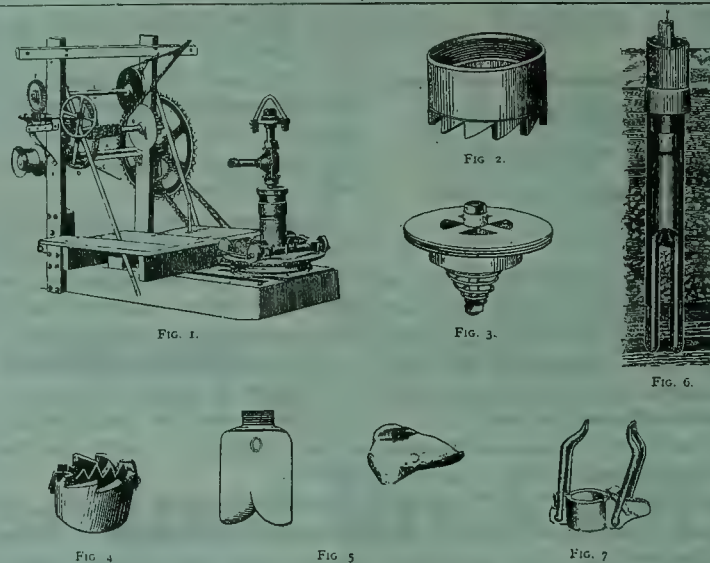
is hot, you have the celebrated bituminous rock, and without the freight on the sand. So, right here on these sandy, loamy, rich plains you have the best material to make roads, streets and sidewalks of that is known in this world, and not only have it, but have it in unlimited quantities, and nature's grand laboratory producing it faster than you can possibly use it.

### Used at Beaumont.

The accompanying cut represents some of the chief appliances used in drilling in the Beaumont field.

It will be seen that the system belongs to the rotary type. Figure 1 shows the means by which the rotary tool is driven. Figure 2 shows the rotary cutter used for drilling through soft strata. Figure 3 is a valve which fits on to the rotary cutter and is so made as to prevent the sand from rising up the pipes, though allowing the water to flow down. Figure 4 is an underreamer. Figure 5 is a cutter so made as to allow the water to flow through it. Figure 6 shows the direction of the stream of water used in boring, and Figure 7 is a device used for raising and lowering the casing into the borehole.

If you have money lying idle—bringing in a very low and unsatisfactory rate of interest, invest it in shares of the Norwegian Consolidated Mining Company, now operating in the Mother Lode in the great gold mining country of California, Tuolumne. C. M. Hatcher & Co. of Boston, are the agents, and their address is 262 Washington Street, Journal Building. Shares today are only 50 cents.



Beaumont Oil Well Tools.

at work digging a trench and putting in the ground eight-inch pipes, thirty miles long, to carry oil and gas to Toledo; and all these changes had been produced by an energetic, roving prospector for gas and oil. And that town had doubled and trebled in less than a year, and is rushing on now to become a great manufacturing city; and yet

In San Francisco we use bituminous rock, as it is called, and it is really funny to hear contractors talk learnedly of patents on bituminous rock, and make some people believe that it is the only thing in the world to pave streets with. Now what is this bituminous rock? Why, nothing but sand filled with a crude coal oil; and if you will take this same crude oil that is flowing out of your mountains and mix sand with it while it

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#### Fitler Cables—best in the world

We carry in stock heavy 7½-in., 5½-in. and 4½-in. Boston Casing, in addition to all the standard sizes and weights. 6-in., 8-in. and 10-in. Boston Drive Pipe always on hand.

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## Why?

Because years of experience have  
taught us how to make it the best.

Our product is known to all large Contractors; You can  
tread on it in New York, as well as in San  
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Canada and abroad.

### REGARDING PRICES:

We can AT LEAST meet any quotation made for good Asphalt.  
Why? Because we own miles of oil territory in Sunset  
District and pipe the oil from our wells direct  
to our refinery. We handle it  
from the well to the car.

Will be pleased to send samples and quotation on all grades  
from Liquid to the very Hardest.

**JEWETT & BLODGET,**  
BAKERSFIELD, CAL.



**OIL MINING CLAIMS.****Regulations Passed By the Senate Regulating Claims.**

The senate committee on mines and mining on the 2d instant made a favorable report upon the Sutherland bill providing for assessment work on oil mining claims, and on the 4th instant the senate passed the measure without debate. This measure, which passed the House on December 8th last, provides that "where oil sands are located under the provisions of title thirty-two, chapter six, Revised Statutes of the United States, as placer mining claims, the annual assessment labor upon such claims may be done upon any one of a group of claims lying contiguous and owned by the same person or corporations, not exceeding five claims in all: Provided that said labor will tend to the development or to determine the oil bearing character of such contiguous claims."

This bill was given very careful consideration by the senate committee on mines and mining, and Mr. Sutherland, the author of the measure in the House, was accorded a hearing at which he urged a favorable report in the interest of a large number of oil prospectors who are now working upon various parts of the public domain in the Western states and territories. Senator Clark, of Wyoming, took an important part in the discussion and became much interested in the bill. A question that was debated at some length was as to whether the proviso "that said labor will tend to the development or to determine the oil-bearing character of such contiguous claims" should be adopted. This feature of the bill was added as an amendment in the house committee, but was adopted by the house without opposition. After some discussion, the senate committee decided to accept the amendment and Senator Clark was authorized to file the following report:

"The committee on mines and mining, to which was referred the bill (H. R. 15,198) defining what shall constitute and providing for assessment on oil-mining claims, have had the same under consideration and report the bill with the recommendation that the same do pass with the amendment.

"This bill as amended provides that where oil claims are located under the provisions of the Revised Statutes as placer-mining claims the annual assessment labor may be done upon any one of a group of claims lying contiguous and owned by the same person or corporation, not exceeding five claims in all, provided that the labor will tend to the development or determine the oil-bearing character of such contiguous claims. The law now requires that upon each mining claim there shall be performed each and every year at least \$100

worth of work. The courts have held with reference to lode mining claims that this annual labor may be done upon any one of a group of mining claims, provided the said work tends to benefit the entire group, but the Land Department of the government seems to be of the opinion that the annual labor upon placer-mining claims must be done upon each of said claims.

"There is good reason for this holding when applied to the ordinary placer claim containing deposits of gold, because in such case the gold lies upon the surface, and general development work being upon and near the surface does not tend to benefit other claims than the one upon which the work is actually done, but in the case of oil-mining claims the situation is different. It is necessary to bore wells for great depths in order to determine whether or not oil exists in paying quantities. These wells are expensive, and it is the opinion of the committee that the industry itself will be more benefited by permitting the owner to spend his means in sinking a single well in order to demonstrate the possibilities of the property than it would to require him to distribute his means among several claims. In other words it is better that \$500 should be spent in one place until the character of the oil deposit has been demonstrated than it is to require the same amount of money to be spent in five different places.

"The committee therefore recommend the adoption of the amendment and that the bill as so amended do pass."

It now seems doubtful whether Mr. Sutherland will succeed in having attached to this bill the amendment which he has had in contemplation for some time and which is as follows:

"Provided further, That the discovery of mineral oil upon one of such group of five contiguous claims shall be regarded as a discovery of mineral oil covering the whole area thereof, for the purpose of location."

Under the terms of this proposed amendment the drilling of a well and the determination that the ground is oil-bearing would not only be accepted as the annual labor upon a group of five contiguous claims, but would also be accepted as the actual discovery of oil upon all the claims of the group. It has been pointed out that unless the law specifically provided that the discovery shall be regarded as covering all the claims in the group, four of them could be jumped, even after oil had been found in commercial quantities.

The Land office authorities are in some doubt as to whether the bill in its present form is open to the criticism which the amendment referred to is intended to meet, and an effort will be made to provide such regulations as will cause the actual discovery of oil to operate as a complete location of the five claims composing the group on which the oil is found.

Report comes from the Pennsylvania capitalists who have leased 2000 acres of land near Lansing, Mich., that the work of boring for oil will be commenced about February 1st.

**OIL FOR FUEL.****Arguments in Favor of General Use of New Fuel.**

From all directions come reports that of overshadowing importance to the oil industry is the question of the utilization of petroleum in fuel. With the impetus given this question through the Navy Department the owners of merchant vessels, the stationary industrial plants and the public in general have kept in close touch with this commercial problem. In a supplemental report to the Navy Department Admiral Melville, regarding the progress of these researches, has this to say:

"The use of crude oil as a combustible for marine purposes has probably increased to a greater extent during the past two years than during the previous century. This has been due to several causes. The character of the oil lately discovered throughout the world is particularly applicable for use as a fuel. The oil fields are likewise near tide water, and therefore it is possible to construct pipe lines to the sea and deliver the product on board the tank steamers at comparatively slight cost. There is also good reason for believing that the wells are not likely soon to be exhausted and that an ample supply can be assured for an increased demand of the future.

"It is evident that there is a very strong desire and purpose upon the part of many ship owners to substitute oil for coal. The thermal, mechanical and commercial advantages that would result from a change are so well known that it is unnecessary to recount them. Nearly every reason that can be advanced for using oil as a fuel in the mercantile marine is also applicable to the navy. In the case of warships, however, there are also military benefits to be secured that are as important as the commercial and mechanical advantages.

"Any fuel installation which will obviate the smoke nuisance, reduce the complement in the fireroom, extend the steaming radius of the war vessels, and permit maximum speed to be obtained at shorter notice, increases the efficiency and value of the fighting ship.

"As more time, talent and money are now being devoted to the solution of the problem, the hope of securing success has been greatly strengthened. Many unreliable statements have been published as to the success secured, but careful investigation shows that they were inspired by interested parties.

"It is the engineering or mechanical feature which is of commanding importance in the industrial or mercantile marine world. The structural disadvantages which are so serious as regards naval development will only be encountered in a lesser degree in ships of the mercantile marine. The structural disadvantages that may prove so serious in the navy will not be encountered in the installation of liquid-fuel appliances in shore establishments. The insuring of a reserve supply of fuel ought also to be an easy matter for industrial plants."

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Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY... FEBRUARY 28, 1903

Under the heading "Collapse of the Big Oil Associated Has Combine" Not Sold out the San Francisco Chronicle on Wednesday contained a sensational article to the effect that the Associated Oil company had sold all its holdings to the Standard Oil company at the rate of \$1,500 an acre, good and bad.

The report is false. Mr. W. S. Miller, the chief representative of the Standard on the Pacific coast, said the report was false. He had heard nothing of such a sale, but would probably have been made aware of the fact had such a sale been consummated or liable to be consummated.

The fact is the Associated is in desperately hard straits, and would be only too glad to sell to the Standard if the latter would give it any old price. The officers of the Associated have drawn down fat salaries about as long as the people connected with the affiliated companies will stand it, and something must be done. These officials are in the same fix as the Irishman who had the bull by the tail and was afraid to let go. They want to let go of the Associated but as yet have not had a chance.

The Chronicle closes its article truthfully as follows:

For some time it has been the general opinion among oil men that the only happy persons connected with the association are those who have been drawing princely incomes from the fat-salaried positions which were created at the outset, and it is also rumored that there has been discord among the shareholders on account of the failure of promised dividends and for other reasons.

## NEW ASPHALT PAVEMENT.

It Is Composed of Earth, Sulphur, and Refined Asphaltum.

The Resultant Composition Is Said to Be Perfectly Satisfactory, and Is Weather-Proof, Being Affected Neither By Heat or Cold—Is Elastic and Durable.

In these days of extensive street paving, experiments are interesting and many are being made. The Fresno Democrat tells of one of these as follows:

In front of a cottage residence on M street, near Mono, is being laid a sidewalk of new materials. The work is an experiment which promises to revolutionize the present methods of sidewalking and paving streets. The gang is in charge of Fred McCall, the court-house engineer, and the material used is his invention, which was described in these columns some weeks ago.

The stuff is to be henceforth known as asphaltum composition. It comprises one part of refined asphaltum to ten parts of common earth, welded together by sulphur. That is a professional secret which all the world may now know as a patent has been secured on the process. The earth, the asphaltum, and the sulphur are carefully mixed in proper proportions and heated to 500° Fahrenheit. The resultant substance is blackish-brown, hard, elastic, and durable. It is absolutely weather-proof, being affected by neither the heat nor the frost. Its elasticity lends to its durability, as it will expand or contract according to the exigencies of the location, precluding the possibility of ruts and bad holes so common in asphalt pavements. This elasticity will also make it a much better sidewalk material than cement, because while it will possess all the advantages of the latter, it will also be comparatively easy on the feet of pedestrians.

The invention, which the promoters believe to be one of the most important of the day, has been monopolized by a corporation to be known as the McCall Construction company, which has its headquarters in San Francisco. Articles of incorporation have been filed with the Fresno county clerk.

Several sections of the sidewalk on M street have been laid. Mr. McCall says that it is unnecessary to lay a foundation for the asphaltum composition, as its manufacture is quite as cheap as the making of concrete or the hauling of rocks or charcoal or other stuff usually used in such cases. The walk is 3½ inches thick, and is laid as fast as the material is made.

Contracts will immediately be let for the construction of a monster engine with a capacity for one hundred tons of the stuff daily. When this is in running order, a gang of men can lay pavements and sidewalks while

you wait. Half a block of an ordinary street can be paved in a day, and the sidewalk capacity will be in proportion.

Already there are many large contracts in sight. The first is for the lining of a seventeen-mile ditch in the Kern county oil district. George C. St. Louis, representing the company, will leave for Southern California immediately.

The pavement will not be one-half so expensive as bitumen or the asphalt in use, and it will be infinitely better and more wearing. He can finish up the job of paving a street for what it would cost by the old method to lay a good foundation preparatory to putting on a thin coat of bitumen or asphalt. The usual thickness of the combination is eight inches. He will put eight inches of asphaltum composition without foundation, doing the work rapidly and well.

The inventor is a native son, and has seen most of his engineering experience in the San Joaquin valley. He has had the idea of asphaltum composition in mind for months, and the product which he is placing on the market is the result of numerous experiments. He knew the value of a combination of dirt and refined asphaltum and searched long for a substance which would weld them together in one composite material. This was found in sulphur, and with the heating process comprises the secret of the invention.

## A \$10,000,000 COMPANY.

The Union Oil Company Files Articles of Incorporation.

The Union Oil company of California, with head offices in Los Angeles, has filed the third amended articles of incorporation at Santa Barbara. The capital stock is fixed at \$10,000,000, \$5,561,300 of which, the papers state, has already been actually subscribed. The company was organized at Santa Paula, Ventura county, in 1890, with a capital stock \$5,000,000, by Ventura county and Los Angeles capitalists. For a long time the main offices of the company were stationed at Santa Paula, but were subsequently removed to Los Angeles. The company has become interested in the Santa Barbara county oil fields, and for that reason has filed duplicate articles of incorporation in Santa Barbara. The heaviest stockholder in the big corporation is the United Petroleum company, which has subscribed \$2,604,157; W. C. Hughes, \$200,000; F. H. Ringe, \$123,000; William Staats company, \$13,450; National Bank of California, \$110,

569; Adams-Phillips company, \$74,840; Fillmore Condit, \$55,800. The Bards are also heavily interested.

## Price of Oil.

The supervisors of Los Angeles recently asked for offers for 50,000 barrels of crude oil heated to 180° for use on the county highways during the ensuing year, and Tuesday of last week the following proposals were submitted:

Doran & Brouse, 50,000 barrels at 81½ cents a barrel; Union Oil company, 15,000 to 35,000 barrels at 82 cents a barrel; Mrs. E. A. Summers, 50,000 barrels at 85 cents; Parker, Merrill & Ott, 10,000 barrels at 84½ cents; Woolner Oil company, 50,000 barrels, 87 cents, 10,000 barrels at 83½ cents; Oil Storage and Storage company, 10,000 barrels at 85 cents, 15,000 barrels at 90 cents; T. F. Joyce, 5,000 barrels at 80 cents.

Last year Los Angeles received nearly 60,000 barrels at from 43 to 50 cents per barrel.

## New Manager.

Mr. E. J. Ensign, the well-known oil dealer, until lately the senior partner with Ensign & McGuffick, has been elected the president and manager of the Mercantile Refining company, and will devote his entire attention to building up the already very extensive business of this progressive and enterprising concern. The capacity of the plant will soon be greatly enlarged to meet the rapidly-increasing business.

## Personals.

Colonel Tim. Spellacy, one of the most prominent and successful oil men of California, and now located at Bakersfield, as the representative of the National Supply company, was in San Francisco last week.

Mr. W. C. Hillman, vice-president of the National Supply company, of Pittsburg, Pa., was in San Francisco last week accompanied by his wife and two daughters. While in California Mr. Hillman will visit the various oil fields.

## More Tank Cars.

From Fullerton to Kern oil producers are demanding oil cars, and are not getting them. So large is the amount of oil shipped from the various fields that the railway companies are unable to meet the requirements of shippers, although every effort has been made to handle the traffic.

Southern Pacific company has found it necessary to send to Texas and if the order is carried out, about 350 tank cars will be added to its facilities in this state.

Do you want to invest in shares of a mining company that is bound to be one of the best paying mining companies now operating on the Mother Lode in Tuolumne County, Cal.? The mine is now being worked, and a great ore body is being uncovered. This is an exceptional opportunity for investment. Address, C. M. Hatcher & Co., 262 Washington Street, Journal Building, Boston, Mass. They believe that the Norwegian Consolidated Mining Company will soon be paying big dividends to stockholders.



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### CONTRA COSTA

The Mt. Diablo Oil company, last week, filed a voluntary petition in bankruptcy. The action was brought about by an attachment bond against the company by the well drillers for \$500. The officers of the company say all debts will be paid. They have several wells, one of which yields four or five barrels a day, another at 1,100 feet sends forth a constant stream of pure water at the rate of 400 barrels a day. The assets more than cover the liabilities.

### COLUSA.

There is every reason to believe oil will be found in Colusa county in abundant quantities and of good quality—an oil that can be refined, and that will command a correspondingly high price. Large seepages have already been discovered of excellent oil, and an anticline extends for miles in this county from the southeast to the northwest, the dip of the sand being about 30°. Several attempts have been made to reach this sand. R. H. Herron drilled a well in a good location where it was expected to reach the sand at about 1,500 feet, but the well was crooked, and, after reaching a depth of 266 feet, was abandoned. The Gibson well, drilled in a good location, was abandoned at about 100 feet or a little more. The Smith and Gorrell well, drilled at a place about ten miles

from the anticline reached a depth of 1,800 feet. It was drilled by W. E. Youle, and the hole was drilled very rapidly, and is now 7 3/4 at the bottom. No sand was reached, but there large quantities of gas was encountered and considerable water was struck. This well has been abandoned, and it is not supposed Smith and Gorrell will make another attempt to drill. Mr. Youle, however, has the greatest faith in Colusa as an oil district. He believes that a vast deposit of good oil exists, and he believes that a well drilled nearer the anticline will strike good oil sand. He has secured by lease and bond several thousand acres lying along the anticline, has secured the necessary capital, and in the spring will commence drilling. No man knows how to drill a well better than Mr. Youle, and no one has had more experience in locating oil land and in finding oil. If Mr. Youle has made up his mind oil can be found in Colusa, it is safe to gamble that he will find it, and find it in good quantities. Mr. Youle has drilled wells in Newhall, Whittier, Coalinga; he drilled in Kern when it was considered useless to attempt to find oil, and in all these places he succeeded in finding what he was after. Where other men failed he succeeded, and what discouraged them added to his determination to continue. Mr. Youle is perfectly well equipped with practical knowledge and experi-

ence, and has the best and strongest rigs and tools obtainable. Colusa people should give him their heartiest trust, support and cooperation. If he and they succeed it will mean much for the county and this portion of the State.

### GLENN.

The Washington-California well is still going down at the rate of twelve feet a day, and oil indications are excellent.

### KERN

At Sunset the Gilt Edge has a well now down 1,600 feet and in oil sand.

The Bald Eagle Oil company has levied an assessment of 33 cents per share payable March 23.

At McKittrick the McKittrick Oil company brought in a well a few days ago that flows 300 barrels a day and is 740 feet deep.

The Dayton Oil company is down 560 feet with its well on 9, 32-23 and the prospects for a good well are most promising.

The Sedalia California well, No. 5 continues to flow 100 barrels a day. The drill is in the sand, and the well will be even better when it is freely opened up.

The Arcata has proved the entire property lying between the Stratton property and the Altoona-Midway wells at Midway. On Wednesday of last week on 31, 32-34, at a depth of 1,164 feet, the Arcata went into oil, and the sand at once rose nearly to the top of the casing. The strike is important, for the reason that it demonstrates without a question that the belt is continuous and on a straight line from Sunset to Midway, the new well being practically half way between the discoveries on either side. This latest strike adds a large acreage to the proven belt and heavily to the value of the property in the vicinity.

### SAN MATRO.

A. S. Botts, of the High Gravity Oil company was in San Francisco this week after oil well supplies.

M. W. Turner, a Los Angeles oil man, has bought a one-fourth interest in the High Gravity Oil company.

A week or two more of dry weather will put the roads in such shape that supplies can be again hauled to the oil wells, when drilling will commence.

The deep well of the High Gravity Oil company is now over 1,200 feet deep, with good oil indications. The company has two other shallow wells both in oil, but are small producers. The deep well is expected soon to reach the sand struck by the Wisconsin company across the creek from where the High Gravity is drilling.

### SAN BERNARDINO.

Mineralogists, geologists, and oil experts have examined the new oil field in the desert in San Bernardino county, Cal., and all pronounce it a most promising oil territory. From Newhall directly northeast, comprising the lands that W. H. Beman has located, are indications of paraffine oil. This occurs in the desert clear down to the Black Buttes in San Bernardino county.

### SANTA CLARA.

On Thursday morning of last week, after passing through 200 feet of clay, the Watsonville Oil company, operating on the Sargents ranch about seven miles south of Gilroy, struck the oil sand, at a depth of 675 feet. Immediately upon penetrating the oil sand, the force of the oil and gas carried the tools forty feet in the air. There was a rush of escaping gas, and up from the casing came oil and sand, clogging up the casing some sixty feet or more. The workmen knew at once that they had at last

# HALFMOON BAY OIL FIELD.

The UNITED STATES INVESTOR, the greatest financial paper in America, published at Boston, recently sent their staff correspondent to this field, and in its issue of February 14th, speaks very highly of the companies whose stock we sell. Copy of the report sent on request.

**OIL.** The highest grade Refining Oil ever found on the Pacific Coast; 50° to 55° gravity.

**TRANSPORTATION.** Tide water, 35 miles from San Francisco, the Oil and Commercial Metropolis of the Coast.

**MARKET.** A refinery at Halfmoon Bay buys all the oil, and makes the highest grade Gasoline, Benzine and Kerosene West of the Rocky Mountains.

**PRICE.** Lowest price ever paid for oil from this field was \$1.50 per barrel at the well; highest price \$3.40.

The oil in the Wisconsin well (just brought in) shot 100 feet above the derrick. The PAXTON Company struck first oil strata at 600 feet. The ILLINOIS Company at 700 feet passed through two light oil strata. Both these Companies only a few hundred feet from flowing well of Wisconsin Company, will get good flowing wells when deeper sands are penetrated. The DUCHESS Company derives profit from royalty of developing companies, and will begin drilling in a short time. These four companies control 2,000 acres of the best oil land in Halfmoon Bay oil field, and over 40,000 acres in other fields.

THE DEBENTURE SURETY COMPANY holds 900,000 shares of stock of the four Companies as a Trust Fund. If any Company fails, we as Trustee, will cancel its stock and issue to its stockholders from the Trust Fund, the stock of the successful companies that absolutely protect investors against loss. Stock is accompanied by a DEBENTURE CONTRACT THAT GUARANTEES PARTICIPATION IN AND PROTECTION UNDER THE TRUST FUND PLAN.

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**Every one of these Companies will be Liberal Dividend Payers.**

The WISCONSIN Company's stock alone is worth double the price asked; it has a flowing well. We sacrifice a few thousand shares to quickly raise cash to drill more wells. **ITS PRESENT OIL WILL BE SOLD FOR THE PAYMENT OF DIVIDENDS.**

Stockholders of our Companies who came to the Coast and investigated have gone on record as follows: (We could give scores of others, space forbids.)

"I examined the Company's books and papers, everything legitimate and as represented. They have a first class property."

Joseph Boschert, La Crosse, Wis. (Banker and Mayor.)

"The management is honest and capable, the property as represented, and we believe first-class."

J. W. Cass, Madison, Wis.

J. F. Bohling, Poynette, Wis.

Wm. K. Mackenzie, Portage City, Wis.

After investigation, these gentlemen bought \$2,000 additional stock.

"I know your business is all right for I have looked you up. I send you \$1,000 for more stock."

H. S. Payn, La Crosse, Wis.

"I spent two weeks investigating one of the Companies. Every dollar is honestly handled."

N. E. Stevens, Editor Paxton Record, Paxton, Ill.

"I was over the oil fields for a week. The men who handle the property are honest and practical. I am more than satisfied."

J. C. Kirkpatrick, Clarence, Ill.

"First-class business proposition in every particular."

C. W. Dickinson, La Crosse, Wis.

"I believe your officers are honest and capable."

A. B. Melville, Chicago, Ill. (Dean Chicago Law School.)

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"Maagement first-class, oil lands best in the field. Invested my surplus cash in stock, so did my friends. Halfmoon Bay will make many fortunes. Highest grade oil I ever saw."

J. E. Root, Pacific Grove, Calif.

A prominent Physician of La Crosse, Wis., spent several days in the field, and wired a friend as follows: Feb. 9, '03—"Oil well fine, getting better every day. There is a fortune in it." To the second party he wired: "Take one hundred thousand shares if you can carry that much and get it."

R. M. I. Kinnear, M. D.

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100	Paxton Co. Stock	25c.	\$25	\$100
100	Illinois Co. Stock	25c.	\$25	\$100
100	Duchess Co. Stock	15c.	\$15	\$100

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MANAGEMENT—Our customers.

Beautiful half-tone cut of oil fields, with printed matter, sent on request.

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Agents Wanted.

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struck a flowing well, and the directors in Watsonville and other towns were at once notified. The well is situated in the vicinity of the old tar spring in which district the same company have sunk several wells. This is the eleventh well and the second well that they have struck oil in paying quantities. The company has expended \$75,000 and the present well has already cost them \$5,000. The first 447 feet, the casing is fourteen inches in diameter. The next hundred feet is twelve inches and that portion at the bottom is ten inches in diameter. The well is thought to be good for at least 300 barrels a day. The present well is exactly 100 yards distant from the last well which had to be abandoned on account of an accident to the casing. This well, however, supplies the present well with oil for fuel.

#### SANTA BARBARA.

Much interest is being taken in the exploitation of a new oil field in the Cuyama district in Santa Barbara county, just across the Coast range from Kern county, says the Echo. Dr. Newberry and associates are interested in 15,000 acres of land in a district that gives every indication of oil bearing. The Webfoot Oil company is engaged in sinking a well in the district, and the drill is now down about 700 feet. It is reported that there is at this depth a strong pressure and it is expected that something will be doing in a very few days. The Cuyama district is at an elevation of 2,500 feet, and is about fifty miles from the Coast. Should oil be struck in paying quantities it will be very easily transported to the coast. There are oil croppings all over the district. Mineral locations were filed all over the district three years ago, but they have since lapsed by failure to do any development work.

Within a few days the long hanging

matter of the consolidation under a single management of the oil wells of the Summerland field in Santa Barbara will be settled one way or another. This deal has been in hand for almost two years and several announcements of its happy ending have been made. But there have always been difficulties in the way of a final arrangement and now the end is in sight through the expiration of options secured by the intending purchasers, the options being dated to run out February 27th. This consolidation scheme was arranged by S. W. Knapp, an experienced oil operator and a man thoroughly familiar with the field at Summerland. He has been in the East for several months arranging to float bonds for the purchase of the field. First there were delays in getting clean abstracts of title to the property and next there were attempts to jump the options. Now the Summerland people do not know which way the deal will turn, although it is still represented to them that the deal will go through.

In the action of the Western Union Oil company vs. Joseph H. Newlove et al. Judge Taggart rendered a decision in favor of the defendants. The action was brought to quiet title and to recover possession of a strip of land in which plaintiff claimed an estate. This strip contained about fifty-five acres, and is now of great value, because oil bearing, extending along the entire north boundary of the ranch of Juan B. Careaga. The title claimed by plaintiff is denied by the defendants, who assert that the fence erected along the south line of the Careaga strip is the true division line between Careaga and Newlove. This estoppel is based upon a parole agreement alleged to have been made in 1888 between Newlove and Careaga, by which the line upon which the fence was built was established as the true division line; and also upon the acquiescence of said

Careaga in said line from the time it was built until the commencement of this action. It is also claimed that Careaga accepted the sum of \$250 in payment of one-half of the just value of the fence.

The Lompoc well of the Union Oil company is doing 250 barrels a day, and the oil is 22° gravity. It is not believed there will be any great amount of development work done in the new field, as the Union Oil company has secured by purchase 180,000 acres of land, covering the choicest portions of the territory. The oil-bearing sand, which has been traced a distance of sixteen miles and has an average width of two miles. The well on the Purissima ranch, in which oil was discovered, tapped the sand at a depth of 2,000 feet. Oil filled the casing to a depth of several hundred feet. The sand is of very fine quality, interspersed with small pebbles. The plan of operation of the Union has not yet been announced officially, but it is thought development work will proceed in a very leisurely manner, as the company have a sufficient output in Ventura county to fill all their present contracts and the condition of the crude oil market does not warrant it. It has been definitely ascertained, however, that a pipe-line will be run from the field to Lompoc landing, a distance of about ten miles. The Union company has large contracts to supply the Hawaiian islands with oil. The contracts run for five years. Equipped with a pipe-line, the company will be in shape to deliver from its new field as well as maintain its ordinary business in Ventura county. The Lompoc Oil and Development company have 1,000 acres on the same anticline and within one mile of the Union company's strike. Considerable speculation in land is going on, prices ranging from \$100 to \$150 per acre.

The Santa Barbara Press says: "The big well of the Union Oil company near Lompoc was shut down yesterday afternoon, the tankage capacity at the well having been filled, even the water tanks

being utilized for the flow of oil. There is now at the well 1,500 barrels of oil in tanks, the last tank of 600 barrels capacity having been filled in two days, proving that the well is at least a 300-barrel producer. The more the well is pumped the greater is the production, and while the company does not yet know whether or not the well will be drilled to a greater depth, depending upon developments, they are more than satisfied with it as it is at the present time.

The material is on the ground for two large storage tanks with a capacity of 25,000 barrels, and they will be constructed at once. When they are completed the pumping will be resumed, and in the meantime the company will locate the site for another well and begin drilling operations in another part of the field, probably a mile or more distant. By the first of the month the company will have three rigs at work, and the third well will be about seven or eight miles from the one first drilled. The object of the company is to define the limits of the field.

"The Union Oil company is the oldest corporation in the oil business in the West. The company was originally formed with Thomas R. Bard and other prominent men of the southern counties, and the first wells owned were in the Santa Paula field, which they still control. It is not a stock-selling concern. The production of the company is enormous, and supplies worldwide markets, having their own tank steamers for the purpose of reaching foreign lands. The company owns tankage in the Hawaiian islands to the amount of 357,000 barrels, and it is very probable that this market will be largely supplied from the Lompoc field, for the wells are conveniently near the water, and loading for ocean transportation will be a matter of comparatively small expense.

"As the company owns or controls about 100,000 acres of land in the vicinity of Lompoc, the query has been advanced, what about the agricultural industries of the locality. While it is not possible to secure definite assurance as to the intention of the company, the intimation is given that the land may be offered to farmers at reasonable prices, with the oil and mineral rights reserved by the company.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

### 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

### 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



## NORTH. SANTA BARBARA

The Attention of Oil Men Is Now Centered On This District.

It is now generally accepted as an established fact that the Union Oil company has just acquired 180,000 acres in the northern portion of Santa Barbara county, lying in different tracts, but all carefully selected on account of their oil-bearing indications.

Says the Los Angeles Herald:

"If the Union Oil company should decide to put down a well on every forty acres—and that would mean, according to oil men of authority, that each well would be practically inexhaustible—the company could put down 4,000 wells and still have large acreage to spare. Allowing only a forty-barrel per day production to each of these wells, and there would be a daily production in the aggregate of 160,000 barrels, or 58,000,000 barrels per year. Such figures may be rather staggering, but they are worthy of being borne in mind while considering the recent acquisitions of oil lands by the Union company."

Becoming convinced that Northern Santa Barbara was the coming great oil district, Lyman Stewart,

not yet been tested, but ranges in gravity about 22°. When 100 feet in the sand the drillers lost a bit and pending the arrival of new tools the well has been pumped at the rate of over 200 barrels a day. But drilling is to be resumed to ascertain just what the drilling log may show in exploring the formation.

"As matters are," said a gentleman recently, who is well informed on Union matters, "this land cannot be developed, much less exhausted, for many and many a long year, probably not in our lifetime. And then, in addition, the Union owns a good deal of territory on the same anticline as the Western Union, and, indeed, in a hundred different points throughout the State. For the last two years our company has taken care of the surplus pretty well, but it has been no aid to us, and still less to oil producers generally, that the report has been periodically set afloat that the Union Oil company is a branch of or has affiliations with the Standard Oil company. As a matter of absolute fact the Union owns not one share of Standard stock, nor does the Standard own one share of Union stock. And this I mean without attempting to

Through the true inwardness of the Union Oil company's movements is here given for the first time, the actual fact of the company having acquired extensive holdings in the Lompoc district has been known for a week past, and the result has been that the locating of oil claims has been the prevailing rage. For months, however, capitalists have been investing in selected territory, and particularly along the Santa Maria anticline. In addition to the companies shown on the sketch map there are several others operating, though not anywhere near the Union's new ground, save in the case of the Lompoc Oil and Development company. That organization has 1,000 acres and is drilling at the same average distance from the anticline as the Union.

## Standard Rushing Work.

Work on the Standard Oil Company's pumping station at Pond is being rushed with a view to getting the pumps ready for a test start about the first of next month. The boilers are in place and one of the engines is in-

stalled, but there is still much work to do, making connections and finishing up odds and ends of work, before the wheels are ready to roll.—Delano Record.

## Oiled Roads a Success.

The rumor that the rains left the streets of Bakersfield in a bad condition is not correct. It is true that the rains did make the streets muddy; that seems to be a natural sequence. But it was noticeable that the mud was on top of the ground and the earth was not cut up. Oil forms a crust and does not rut.—Echo.

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Consulting Engineer and Expert on Oil Combustion

Official Inspector of Oil-Burning Installations on Steam Vessels as authorized by the United States Treasury Department.

Mills Building, San Francisco, Cal.

## Mt. Hamilton Land and Oil Co.

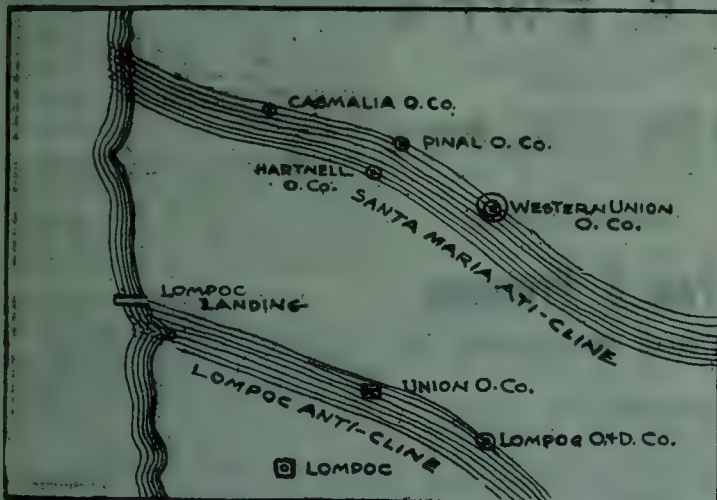
Owens oil territory in the Coalinga and Kreyenhagen Oil Districts. Is now down over 400 feet on its first well at Alcolde, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 560 acres.

Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

Office 6, 7, 8 and 9 Rea Building, - - SAN JOSE, CALA.



Map of the Northern Santa Barbara Oil Field.

president of the Union Oil company, sent out his experts who quietly gathered up everything obtainable, the first tract being the Canfield holding on the Purissima, where F. F. Hill & Co. recently bought in a well. This tract contained 3,200 acres, and from this tract holdings were obtained northeast to the sea, and also for some distance south of the Hill well.

The Western Union wells are situated on what is known as the Santa Maria anticline, and from there the lands gradually slope until the second or Lompoc anticline is reached, when there is again slight elevation, and from there the lands flat out to the coast. The Union's new well is on the Lompoc anticline, as shown on the accompanying rough sketch map, which gives an approximate idea regarding the relative positions of the several places alluded to. Over the wide area of land extending from this well the dip of the rock is only from three to ten per cent, and where the well was drilled it is only 375 feet to the mile, while at Baku, the noted Russian oil field, it is about 666 feet.

In its new well just brought in oil was struck at a little over 2,000 feet. It is a light fuel oil and has

use evasive or ambiguous words. But somehow or other there are producers to-day who take all the risks of production, and are then willing apparently to surrender control of the situation to an outside company that produces nothing.

"Yes, our company will develop this new territory, and will make a beginning in the very near future, but it is no use my saying that we will put down such and such a number of wells, for that is all in the future and will be determined by circumstances. I may say this, however, that a pipe-line will be laid for the ten miles that intervenes to the seaboard. There we will have a wharf on our own lands and other improvements will be made."

All of which means that times will be lively in the Lompoc region during the coming season. R. A. Garbutt, who has acted as one of the Union's agents in the matter of buying land, is authority for the statement that the oil belt has been traced for a distance of sixteen miles, with an average breadth of two miles. It is also being contended that the entire region between the ocean and the San Marcos range, a distance of over thirty miles, is good oil territory.

# Drilling Rig And Casing for Sale Cheap.....

Oil Well Supply Company's Drilling Outfit, Complete, With 23-Horse Power Engine and New Cable.

700 feet of 11 5-8 Casing,  
1,064 feet of 8-inch drive-  
pipe, Weighing 28.18 per  
foot. All as Good as  
New. For sale at a  
Bargain.

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Secretary Mt. Oso Oil Co.,  
GRAYSON, - - - CAL.



## AFTER THE BATTLE.

## Big Lawsuit Resulting From the Midway Suit.

Damages to the amount of \$78,000 are demanded by George P. Cornell, formerly of Butte county, now of Tacoma, Wash., for injuries received in the famous Midway district battle of April 19, 1901.

Mr. Cornell has brought suit in the Superior Court against Joseph Chanslor, Samuel J. Dunlap, Milt Donley, Wilbur Hendryx, A. P. Schaefer, G. M. Donley, Geo. L. Berger, Charles Todd, J. W. Jamison, A. A. Neil, H. C. Fertig, J. T. Chick, Charles Hill, E. J. Boust, Horace P. Anderson, John Wortan, and Fred Price, alleging that they were in the party which formed a conspiracy against the Superior Sunset Oil company, and on the night named attacked him while he was in peaceful possession of the company's holdings. He sets forth that they were armed with firearms, and that while he was trying to escape they riddled him with bullets. It was necessary to have his left leg amputated. He was also badly wounded in the right leg and in the abdomen.

Cornell says that he has been very ill as a result of his injuries ever since the eventful night. He asks \$3,000 to cover doctors' bills and \$75,000 as punishment for his persecutors.

The case will awaken much interest, mainly because of the number and prominence of the defendants. The cause of the assault is not named in Mr. Cornell's complaint.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, February 25:

CALIFORNIA STANDARD.			
1,000 at	17.....		\$ 170 00
CARIBOU.			
200 at	97 1/2.....	195 00	
200 at	1 00.....	200 00	
500 at	1 00 (B 10).....	500 00	
100 at	1 00 (S 10).....	100 00	
100 at	1 00 (B 30).....	100 00	
100 at	97 1/2 (S 90).....	97 50	
CENTRAL POINT CON.			
500 at	85.....	425 00	
CHICAGO CRUDE.			
100 at	27.....	27 00	
550 at	25.....	137 50	
FAUNA.			
500 at	20.....	100 00	
FOUR.			
100 at	62.....	62 00	
1,050 at	63.....	661 50	
500 at	65.....	325 00	
HOME OIL.			
250 at	3 30.....	825 00	
400 at	3 25.....	1,300 00	
800 at	3 20.....	2,560 00	
100 at	3 20 (B 30).....	320 00	
INDEPENDENCE.			
3,000 at	15 (B 90).....	450 00	
1,000 at	14 (S 90).....	140 00	
2,050 at	14.....	287 00	
9,600 at	15 (B 10).....	1,440 00	
150 at	16.....	24 00	
200 at	15.....	30 00	
2,000 at	14 (S 30).....	280 00	
3,000 at	15 (B 30).....	450 00	

## JUNCTION.

450 at	11.....	49 50	
5,500 at	12.....	660 00	
KERN.			
25 at	5 25.....	131 25	
LION.			
1,100 at	09.....	99 00	
MONARCH.			
200 at	35.....	70 00	
1,000 at	36.....	360 00	
MONTE CRISTO.			
200 at	1 35 (S 90).....	270 00	
1,200 at	1 37 1/2 (S 90).....	1,650 00	
100 at	1 42 1/2 (B 30).....	142 50	
OCCIDENTAL OIL.			
250 at	19.....	47 50	
OIL CITY PETROLEUM.			
1,500 at	32.....	480 00	
11,850 at	33.....	3,910 50	
3,700 at	34 (B 30).....	1,258 00	
PEERLESS.			
40 at	15 00.....	600 00	
REED CRUDE.			
3,500 at	31.....	1,085 00	
4,100 at	32.....	1,312 00	
SAN JOAQUIN.			
25 at	7 87 1/2.....	196 87	
SOVEREIGN.			
82 at	44.....	36 08	
5,865 at	45.....	2,639 25	
1,000 at	46 (B 30).....	460 00	
50 at	47.....	23 50	
32 at	40.....	12 80	
STERLING.			
1,800 at	3 50.....	6,300 00	
300 at	3 55.....	1,065 00	
100 at	3 55 (S 90).....	355 00	
60 at	3 50 (C).....	210 00	
100 at	3 50 (S 90).....	350 00	
100 at	3 60.....	360 00	
TWENTY-EIGHT.			
200 at	3 00 (B 5).....	600 00	
50 at	3 00 (S 90).....	150 00	
25 at	3 15 (S 5).....	78 75	
200 at	3 00.....	600 00	
200 at	3 10.....	620 00	

74,954 Shares Amount \$37,389.00

## HAWAIIAN COMMERCIAL.

500 at 46 75..... 233 75

## NORTHERN CAL. POWER CO.

125 at 10 00..... 1,250 00  
50 at 9 50..... 475 00

## OCEANIC STEAMSHIP.

100 at 14 50..... 1,450 00

## S. F. GAS &amp; ELECTRIC.

25 at 43 00..... 1,075 00

305 Shares Amount \$4,483.75

## UNITED STATES 3's BONDS.

200 at 1 07..... 214 00

200 Shares Amount \$214.00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo.....	.30	
Aztec.....	.80	
Bear Flag.....	.05	.10
California Standard.....	.15	.17
Caribou.....	.95	.97 1/2
Central Point Con.....	.85	
Chicago Crude.....	.25	
Clairmont.....	.23	
Fauna.....	.13	.18
Four.....	.65	
Hanford.....	125.00	140.00
Home.....	3.15	3.25
Imperial.....	18.25	21.00
Independence.....	.14	.15
Junction.....	.11	.12
Kern.....		5.50
Kern River.....	14.00	15.00
Lion.....	.09	.10
Monarch of Arizona.....	.30	.40
Monte Cristo.....	1.37 1/2	1.40
Occidental of West Va.....	.18	.19
Oil City Petroleum.....	.31	.32
Peerless.....	15.00	15.25
Reed Crude.....	.32	.33
S. F. & McKittrick.....	2.50	2.75
San Joaquin O. & D.....	7.75	8.00
Sovereign.....	.45	.46
Sterling.....	3.55	3.60
Thirty-three.....	8.75	9.12 1/2
Twenty-eight.....	3.00	3.25
Union.....		70.00
United Petroleum.....	117.00	120.00
West Shore.....	3.00	5.00
Wolverine.....		.60

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Telephone, John 946

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10 CENTS A SHARE  
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Absolutely Non-Assessable.

When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

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Los Angeles, Cal.

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## APPLICATION FOR CHANGE OF NAME.

In the Superior Court of the City and County of San Francisco, State of California.  
No. 84083, Department No. 3.  
In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.  
To the Honorable, the Superior Court of the State of California in and for the

City and County of San Francisco:

The above named Sinaloa Mining Company, a corporation, petitioner named herein, applies to the said Superior Court for an order changing the name Sinaloa Mining Company to Los Tecotes Gold Mining Company, and in that behalf aver and set out:

I. That the said Sinaloa Mining Company is a corporation duly incorporated and organized and existing under and by virtue of the laws of the State of California; that the date of the formation of your said petitioner was the 26th day of May, 1885, and the said Sinaloa Mining Company is the present name of your petitioner, and the name to which it is proposed to change the said name of the Sinaloa Mining Company is the Los Tecotes Gold Mining Company; that the principal business of the Sinaloa Mining Company is transacted in the City and County of San Francisco, State of California, and its Articles of Incorporation are duly filed in the office of the County Clerk of said City and County of San Francisco.

II. That the capital stock of said Sinaloa Mining Company consists of Ten Million Dollars (\$10,000,000), divided into One Hundred Thousand shares (100,000) of the par value of One Hundred Dollars (\$100.00) each and of which capital stock twenty-five thousand (\$25,000) shares have been issued and fully paid up.

III. That the directors of said Sinaloa Mining Company are Geo. S. Montgomery, A. W. Dennett, S. R. Break, M. E. Randolph and R. H. Cross, and at a meeting of the said Board of Directors, duly and regularly held on the 2nd day of February, 1903, at the place of business of the said Sinaloa Mining Company, in the City and County of San Francisco, the said directors duly and regularly resolved and authorized the President and Secretary of the said Sinaloa Mining Company to file with the Clerk of the Superior Court of the City and County of San Francisco, State of California, this petition and application to change the name of said Sinaloa Mining Company to that of the Los Tecotes Gold Mining Company, the said petition to be signed by a majority of the said Board of Directors.

IV. That the members of the Board of Directors of said Sinaloa Mining Company, the owners of a large number of shares of the capital stock of said corporation, and together with nearly all, if not all, the stockholders of the said Sinaloa Mining Company, earnestly desire that its name be changed to that of the Los Tecotes Gold Mining Company, for the reasons hereinafter set forth, to-wit:

That the works and mines of said Sinaloa Mining Company are situated in the State of Sinaloa, United States of Mexico, and consist chiefly of the mining property known as "Los Tecotes Mine," which has been worked for centuries and known by the aborigines as Los Tecotes Mine; that the said Sinaloa Mining Company is known as and commonly called in the State of Sinaloa "Los Tecotes Mining Company."

That the name of Sinaloa Mining Company is too general and the property of the company is confused with that of other companies bearing similar names.

That for the above and other reasons it would be for the best interests of said Sinaloa Mining Company and its business would be greatly improved if the change of name herein applied for be effected.

V. That there is no association or corporation in this State or elsewhere using the name of Los Tecotes Gold Mining Company to the best of petitioner's information or belief.

Wherefore your petitioner prays that the name of said corporation, to-wit—Sinaloa Mining Company, be changed to Los Tecotes Gold Mining Company, and that a time be fixed as provided by law for the hearing of this application.

SINALOA MINING COMPANY,  
(A Corporation)  
By GEO. S. MONTGOMERY,  
President.

[Seal] S. R. BREAK, Secretary.  
GEO. S. MONTGOMERY,  
A. W. DENNETT,  
M. E. RANDOLPH,  
S. R. BREAK,  
R. H. CROSS,

Constituting a majority of the Board of Directors of the Sinaloa Mining Company, State of California, City and County of San Francisco—ss.

S. R. Break first being duly sworn deposes and says:

That he is an officer, to-wit, the Secretary of the Sinaloa Mining Company, a corporation, petitioner herein; that he has read the foregoing petition and application and knows the contents thereof; that the same is true to his own knowledge except as to the matters which are therein stated on his information and belief, and that as to those matters that he believes it to be true.

S. R. BREAK.  
Subscribed and sworn to before me this 2nd day of February, 1903.

[Seal] CLAY P. GOODING,  
Notary Public in and for the City and County of San Francisco, State of California.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahony, Clerk, by H. H. St. Leger, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco.

In the Superior Court of the City and County of San Francisco, State of California. No. 84083 Dept. No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

Order directing publication of Petition or Application for change of name, and it is hereby ordered that the petition of the above named corporation, Sinaloa Mining Company, for the change of the corporate name to "Los Tecotes Gold Mining Company," which petition or application was filed herein on February 3rd, 1903, be heard at ten o'clock A. M. on the 8th day of March, 1903, by the said Superior Court in Department No. 3 thereof.

It is further ordered that a copy of such petition or application be published for four (4) successive weeks prior to the date of said hearing in "Pacific Oil Reporter," a newspaper printed in the City and County of San Francisco.

Dated February 3rd, 1903.  
FRANK J. MURASKY,  
Presiding Judge of the Superior Court.  
Endorsed: Filed Feb. 3, 1903, Albert B. Mahony, Clerk, by J. J. Greib, Deputy Clerk.  
R. H. Cross, attorney for petitioner, Mills Building, San Francisco, California.



The Shell Transport and Trading Company has three steamers running in the Texas oil trade at the present time. These are—the Pinna, Cardium and Strombus.

The Standard Oil Company controls over 80 percent of all the petroleum produced in the United States.

Some rather high figures are being paid for western oil lands. Two Oklahoma men paid \$500 per acre for a lease adjoining production at Chanute, Kan.

The production of Spindle Top, near Beaumont, Tex. is now estimated at from 20,000 to 30,000 barrels a day.

The transport of petroleum on the Volga and its tributaries during last navigation (1902) reached 335,000,000 poods, or 80,000,000 poods in excess of the quantity transported in 1901. The stocks, however, were greater in 1901 than in 1902 (45,000,000 in 1901, and 23,000,000 in 1902). A pood is 36 pounds.

The Nikolaieff Railway (St. Petersburg to Moscow) has made a trial of petroleum briquettes as fuel. They consist of a mixture of peat and mazoot, and the results have been very satisfactory.

The Chicago-Colorado Oil Company, made up mostly of Colorado Springs capitalists in connection with some citizens of Chicago, have struck oil in the Hartsell district of Colorado.

Oil has been discovered on the island of San Domingo, south of Cuba. The find consists of oil springs of large extent.

#### CYONET PETROLEUM CO

Capital.....\$150,000  
 50,000 shares at \$3.  
 Location—Pismo county  
 Directors—Chas. L. Fair, president, Edith W. Patton, vice-president, Chas. A. Lee, treasurer, John C. McKillop, secretary.  
 Office—561 Parrott Building.  
 Tel.—South 184.

#### STANDARD ROCK OIL COMPANY.

Capital.....\$400,000  
 Treasury stock.....\$30,000  
 Location: 92 acres leased proven oil land in McKittick; 80 acres owned in Coalinga near Home Oil company, Pismo, 160 acres owned adjoining oil well in Napa valley.  
 Leased 5000 acres asphaltum land in Santa Clara county. Asphaltum refinery erected.  
 Officers: R. A. Falkenberg, president, M. J. Henley, secretary; B. B. Clawson, R. P. Chase, Col. H. J. Ensign.  
 Offices: 475-76 Parrott Building, 855 Market street, San Francisco, Cal.

#### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 23, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
 S. R. BREAK,  
 Secretary Sinaloa Mining Company.  
 Dated February 2, 1903.

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 Pass. Traffic Mgr. Gen. Pass. Agent

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 San Francisco Call uses 23 Smith Premiers  
 Oakland Public Schools use 11 Smith Premiers.

Pacific Hardware and Steel Company uses 21 Smith Premiers.

The Viavi Company uses 10 Smith Premiers.

California Wine Association uses 9 Smith Premiers.

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Drilling deep wells for  
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 Furnish Complete Plants  
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STANDARD DRILLING RIGS  
 OIL WELL TOOLS AND CASING  
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All of the Best Makes and Standard sizes second hand

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Good Second hand Rigs  
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Cut shows boiler mounted upon frame of machine and gas works. It is usually advisable to have boiler mounted upon trucks separate.



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The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2825 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

One No. 4 Machine has a record of Thirty-two 800-foot holes in one year.

Made in Sizes to Suit Territory.

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Manufacturers of Up-to-Date Drilling

AND

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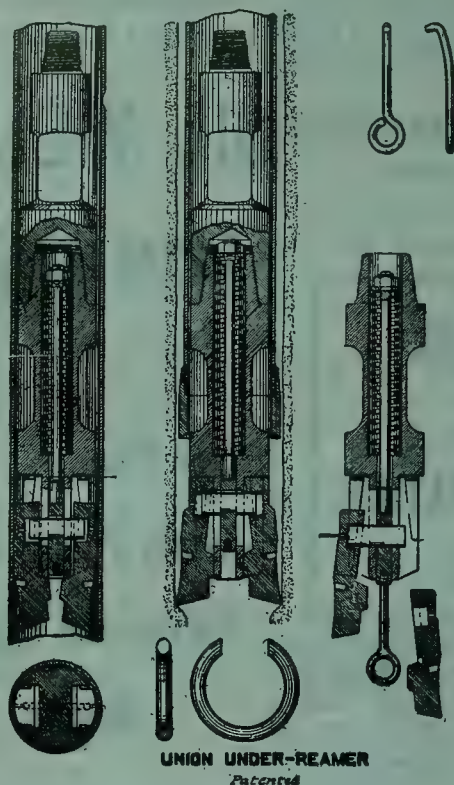
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Office, 214 Stimson's Block, Los Angeles  
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Present Capacity 200 barrels of Crude Oil a Day  
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Distillates, Stove Distillates, Fuel Distillates,  
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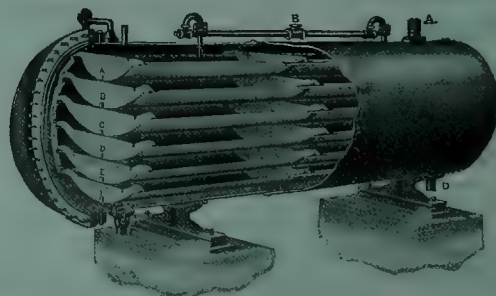
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Machinery of the Highest Grade

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Are guaranteed to heat Feed-Water to 210 degrees and to  
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No chemicals at cost of 3 to 6 cts. Per 1000 gallons required.  
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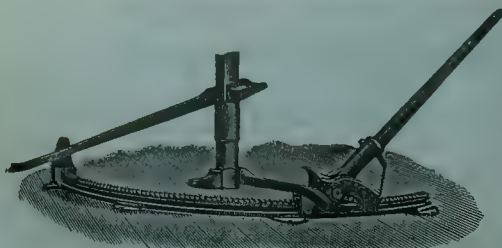
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# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 18.

SAN FRANCISCO, CAL., SATURDAY, MARCH 7, 1903.

Price 10 Cents.

## OIL WELL SUPPLY CO. PITTSBURGH, PA.

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To Drill, Equip and Operate OIL, GAS and WATER WELLS  
BOILERS, ENGINES, DRILLING and FISHING TOOLS  
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### COMBINATION OUTFITS

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ALL STEEL, CAN BE MOVED EASILY, MOTIVE POWER EITHER STEAM  
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BUILT IN THREE SIZES, 500 ft., 1000 ft., 1500 ft.

Particularly adapted to hot climates and for test bores.

COMPACT, DURABLE, EFFICIENT.



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Let us send you samples and quote  
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May be relied upon for quality and has stood successfully  
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## Be sure you get the best

Do you know the high stand-  
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Roofing and Paving Asphalt  
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Immediate Delivery, Finest Quality, Best Prices

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Present Capacity 200 barrels of Crude Oil a Day  
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A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

### Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the  
station, and have large producing wells within 50 to  
500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-  
barrel Home Oil gusher, and 160 acres adjoining  
Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price  
of oil warrants, two wells will be pushed to a finish.  
We have leased on very low royalty, from the City  
Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high  
grade asphalt near Sargents Station.

We have concluded contracts for the sale of our  
Refined Asphalt at a figure which will enable us to  
pay dividends very shortly.

We are ready to contract in carload lots crude or  
refined asphaltum.

All the houses are erected, Refining Works and  
a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends  
in this large enterprise must be earned within a  
short time.

Asphaltum is a staple article. Ours at \$14.60 per  
ton (present price) is greatly superior to the famous  
Trinidad at \$40 per ton f. o. b. here.

## Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

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Proven oil lands in Napa and Coalinga for sale cheap.

AGENTS WANTED In All Large Cities for the Sale of Our All Refined Asphaltum



# PACIFIC OIL REPORTER

VOL. 4. No. 15.

SAN FRANCISCO, CAL., SATURDAY, MARCH 7, 1903.

PRICE, TEN CENTS.

## CALIFORNIA ASPHALT.

**Its Superior Quality Is Now Recognized In Eastern Cities.**

**It Has Proved Itself To Be the Equal of the Trinidad Product, and Is Now Used Wherever a Superior Article of Asphalt Is Required.**

The oil found in California is used either as crude or as some form of refined product.

At the present time the bulk of

out of our harbors will be using much more than was used for all purposes in 1901, and this will not be one-half of the total consump-

To-day it exceeds 31,000 barrels, and, in a few weeks, when the new Standard refinery gets into operation it will exceed 50,000 barrels.

Three years ago California asphalt was almost unknown in the East, and where it was known it was regarded as a greatly inferior product, not to be put in the same class as the Trinidad asphalt, or any of the products of the Trust. To day it is the equal of the best Trinidad asphalt, is regarded by the Trinidad and "Trust" people as their greatest foe as a competitor for material for street paving, and is frequently sold by dealers

000 barrels.

The average oil used in our California refineries yields about 30 percent of asphaltum; and last year the refineries turned out about 36,000 tons of superior asphalt, or an average of 3000 tons monthly.

As a matter of fact the total output for the year 1903 will show a much larger monthly average as the refineries are increasing constantly in number, and nearly all the old refineries are rapidly adding to their capacity in order to meet the increasing demand.

This is the season when work on paving streets is practically



Wells of the Occidental Oil Company in Sunset District. There are hundreds of such wells in Sunset and Midway oil districts waiting for the completion of the Jewett and Blodgett pipe-line now being constructed to the refinery, and the opening up of the Midland Pacific Railroad, now being graded from Sunset and Midway to the Coast.

our oil, all of which has an asphalt base, to a greater or less degree, is used as liquid fuel, and its use in this respect is increasing with marvellous rapidity.

In 1901 the total consumption of the entire State was only 8,000,000 barrels; by the close of 1903 the railroad engines and the steamers sailing on our bays and

tion of oil in the State.

What a change for two years!

Two years ago there were not a dozen refineries in the State. To-day there are thirty-two, and this number is being added to almost if not quite monthly.

Only a few months ago the total still capacity of all the oil refineries did not exceed 10,000 barrels.

as Trinidad asphalt to those who ignorantly require the foreign product as against the Californian, on account of the supposed superiority of the former.

The refineries of California which make asphalt to a greater or less extent have a still capacity of about 32,000 barrels, or we will say a daily capacity of about 16,

shut down on account of the prevailing cold, stormy weather of the winter months; and, as a consequence, the oil refineries that manufacture asphalt are idle. Yet, so evident is it that California asphalt is to be in great demand when spring opens, our refineries are, most of them, working full time, in order to be ready



to meet the demands of the market which will be greater than ever before in a month or two.

This article is intended merely as an introduction to a series of articles which are to follow, week by week, and which are intended to give a better idea than apparently is at present entertained in the East, of the value and extent of California's oil industry, and especially of that portion of it pertaining to asphalt-paving in particular.

Some—not all—of the Eastern paving contractors recognize the value of our asphalt and are after it with all the means at their command. But when they get it they palm it off on an ignorant public as "Trinidad asphalt; better far than the California asphalt," thus hurting our asphalt all they can in the endeavor to keep down its price, while they sell it, when they can, for a so-called superior article which in reality is in no respect better, but in many respects is inferior to our own.

In the articles which will follow from week to week in these columns the PACIFIC OIL REPORTER will endeavor to demonstrate a great many things that are not thoroughly understood as yet about California asphalt. It will endeavor to show:

FIRST. The vastness of our as-

phalt industry.

It is a fact, strange as it may seem, that many Eastern street contractors who want to use California asphalt are afraid to depend upon our refiners to furnish the asphalt in sufficient quantities when needed. They think we will be unable, when the time comes, to fill the order. If this should happen then the Eastern contractor says he will be forced to buy from the Eastern Asphalt Trust with which he had just broken, and that when he goes back to the Trust, gets down on his marrow bones and begs to be taken back into the fold, the Trust will cinch him good and hard, and force him to pay a price greatly in excess of that he would have paid had he not been led to make a bargain with the California asphalt men.

Eastern contractors need not fear on this score. California refiners can supply all the asphalt needed, and when the market increases our refineries are so constructed that their capacities can be increased to keep pace with the market. Eastern contractors have been lied to most unblushingly. The Trinidad men have belittled California refiners in every way. They have said their product was inferior, that it would not wear, that it was uneven in quality and could not be depended

upon as to grades, that so little was manufactured a big contract could not be filled, and that even if it was manufactured in sufficient quantities it could not be transported when and where needed on account of distance and lack of cars.

The Trinidad men and the Trust have lied about us loud enough and long enough, and the biggest lie of all was that our refiners could not fill any large contracts.

We can fill large contracts as quickly, as cheaply and as satisfactorily as the Trinidad men or the Trust and we are prepared to prove it.

SECOND: It has been said and it is now said California refiners have not the capital to engage in the manufacture of asphalt on any such scale as will allow them to fill large Eastern contracts.

That is another misstatement of our competitors. They have had their own way so long they cannot realize that in a year or two an industry has grown up in California that has proved itself worthy of being backed by capital—millions of capital.

There is no space in these limits to enlarge on this portion of the subject.

We have at our command a surprising array of facts and figures, photographs showing the extent

of works, etc., that when properly arranged, grouped and published will prove to any man who has sense, and who understands the asphalt business, that the California asphalt men are going into this business on a scale, and are backed by sufficient capital to enable them to enter into competition for supplying the largest quantities of asphalt that may be required for paving or for any other purpose.

California has the oil to turn out millions of tons of asphalt yearly, and the capital is ready to buy the oil and refine it.

THIRD. The excellence of our product should command its sale.

We do not want to unnecessarily offend our Trinidad friends, but we must repeat the assertion that they are the most consistent followers of Ananias we have ever heard of, in that they continually assert to street contractors, to the heads of street departments in Eastern cities and elsewhere that "the California asphalt is greatly inferior to the Trinidad product." They have repeated this statement again and again. They have used the argument of malicious falsehood so successfully against us that in very many instances they have succeeded in having inserted in specifications a clause to the effect that "Trinidad asphalt only shall be used." They have said we

## THE NATIONAL SUPPLY COMPANY

**Oil Well Supplies  
Drilling and  
Fishing Tools**

**Fitler Cables—best in the world**

We carry in stock heavy 7½-in., 5½-in. and 4½-in. Boston Casing, in addition to all the standard sizes and weights. 6-in., 8-in. and 10-in. Boston Drive Pipe always on hand.

**Pacific Coast Headquarters**

**117 North Main Street**

**Los Angeles, Cal.**

Branches:

**Bakersfield and McKittrick, Cal.**

The REPUTATION

we have made for our

# ASPHALT

is UNEXCELLED

WHY? Because years of experience have taught us how to make it THE BEST.

□□□□□□

Our product is known to all large Contractors; You can tread on it in New York, as well as in San Francisco. We also ship it to Canada and abroad.

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**REGARDING  
PRICES:**

We can AT LEAST meet any quotation made for good ASPHALT. WHY? Because we own miles of oil territory in Sunset District and pipe the oil from our wells direct to our refinery. We handle it from the well to the car.

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Will be pleased to send samples and quotation on all grades from Liquid to the very Hardest.

**JEWETT & BLODGET,  
BAKERSFIELD, CAL.**



could not produce our asphalt in sufficient quantity; that we had no money to make it with, and, that even if we could make enough of it, it would not be fit to use.

The Trinidad men have said this, say it now, and will continue to say it, until Eastern contractors so know the real truth that the Trinidad men will be ashamed to do the Ananias act any longer.

This may seem to be strong language to our Trinidad friends and the Trust; but if they get hot about it, it will do them good this cold weather in the East, and save coal bills.

All this misrepresentation has done good for them to be sure, in that it has kept the California asphalt men from getting some good contracts, but it has not prevented those same Trinidad-Trust men from buying California asphalt and using it on the very contracts they have obtained by declaring that "California asphalt is not fit to use."

This article is just preliminary—a "curtain-raiser," if you want to call it that—and we have not time to go into the merits of our Pacific coast product, or show where and how it has been used in the East, and how it has given general satisfaction. Sufficient to say that we have scores of testimonials concerning the excellence of the California asphalt, and that when our asphalt can be properly laid on one block in an Eastern city, in a year it will so advertise itself that one block of paving will result in miles of California asphalt being laid in that city. The proof of the excellence of our asphalt is that once used it is always used, and used to the exclusion of Trinidad or any other asphalt. The wedge of our asphalt has entered deep into the log in many an Eastern city, and the knot is already beginning to split wide open.

You can ride on it in Portland, Maine; in Brooklyn, New York, Buffalo, Pittsburg, Chicago, Kansas City, Denver, Boston, and a dozen other cities. Before the close of the paving season of 1903 you will be able to ride on it in dozens of other cities, and some of them in Europe.

Our asphalt is all right when laid right. It is equal to the best, and inferior to none, and we want

the world to know it.

It is the duty and the pleasure of the PACIFIC OIL REPORTER to stand up for the chief product of the oil industry of California, and it proposes to enter upon a campaign of education—a campaign of refutation of the lies that have been cast upon our asphalt, and to do all that a powerful and authoritative trade journal can do to build up a branch of the industry it represents.

PACIFIC REFINING CO.

One of the Most Complete Refining Plants in California.

The plant of the Pacific Refining company is located about a mile from the center of the city of Bakersfield on the main line of the Santa Fe railroad, where the company has its own siding, and every facility for loading and unloading tank and freight cars.

The company was organized in the early part of 1901, and has for its officers and directors the fol-

Most of the oil is obtained from the Kern River field, and is at present shipped in tank cars. From the cars the oil is pumped directly into a 20,000 barrel tank, from this into a settling tank, whence it is pumped into the stills. Nearly 30 percent of asphalt is obtained from the and the balance is shipped to San Francisco and elsewhere as crude distillate, to be used mostly for gas-making purposes.

The asphalt is sold mostly in the East, and is shipped to many of the large cities such as New York, Boston, Chicago, Buffalo, etc., where it is used almost entirely for paving purposes, and for felting, making fuse, and in different forms of manufacture. The quality manufactured is mostly the "D" grade, and the oil used is 15 gravity Kern River oil.

The asphalt sent to the East has given the best of satisfaction, and the business is increasing

Snakes or Oil?

Yesterday W. C. Stokes, the well-known owner of the old Guadalupe dove house in town and who has recently leased his lands for oil boring purposes to a Los Angeles oil company and takes more than an ordinary interest in everything pertaining to oil development in this section, was fortunate enough to strike a gusher that bears every indication of being a second Beaumont and placing himself and family far beyond the sea of financial troubles. Like most of the great finds of the prospector it was discovered by accident. Mr. Stokes was hauling wood to Guadalupe across the government strip of land south of town when one of the tugs of the harness became severed and he alighted to repair the damage. His only tool was a long-bladed knife and in trimming the edges of the tug in order to make a splice the knife slipped from his hand and fell to



Plant of Pacific Refining Company at Bakersfield, California.

lowing influential, wealthy and experienced oil and asphalt men: President, H. A. Blodget; Secretary, Colonel Tim Spellacy; Manager, C. M. Beal; Superintendent, R. S. Knight. Directors, C. C. Lamb, C. J. Berry, Ed. E. Bush, and W. M. Spencer.

The company refines oil for asphalt, and the plant is thoroughly equipped for the business.

It has a capacity of 900 barrels and has three stills each of a capacity of 300 barrels, which are filled every twenty-four hours.

The oil is obtained, most if not all of it from the wells owned by the members of the company which is a close corporation.

very rapidly.

The plant is so arranged that its capacity can be increased very materially, and a number of stills can be added as the necessity for increased manufacture arises.

During the winter but little is done or can be done in the East in the way of paving the streets, consequently the asphalt refiners of California during the winter are enabled to lay in a big store of asphalt ready for the opening of the season in the East. At present the Pacific Refining company has on hand nearly 1,000 tons of superior asphalt, but this supply will be exhausted as soon as the Eastern paving contractors are ready for the opening of the season.

the ground, imbedding itself in the earth the entire length of the blade. Judge of his surprise when removing the implement to see it followed instantly by a stream of oil that reached a height of four feet. After watching the steady flow of the fluid for several minutes he procured an oak stake and drove it into the orifice, effectually shutting off the gusher. Mr. Stokes is highly elated over his find and leaves to-morrow morning for Santa Barbara to file on his claim.—Guadalupe Moon.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The  
Name  
Determines  
the  
Quality

**FITLER'S**  
**DRILLING**  
**CABLES**

**R. H. HERRON CO.**  
509 Mission St. - SAN FRANCISCO

**Oil Well Supply Co.'s**  
**Drilling Tools**  
**Engines & Supplies**  
**Pumping Outfits**

The  
Name  
Determines  
the  
Quality



## MEXICAN PETROLEUM CO.

### An Enormous Expenditure of Money In a Short Time.

#### Over Half a Million Dollars Expended in Improvements, Which Include Railroad, Tanks, Refinery, Pipe-line, Light and Power Plant, Etc.

The fact that the Mexican Petroleum company, of which E. L. Doheny is the President, has levied another assessment of three cents per share has called increasing attention to its affairs, and has made people wonder what the company has done with the vast amount of money raised and expended.

The following statement, a balance sheet, rendered by the company on January 1st, 1903, gives an insight into its financial affairs that is a revelation as compared with the balance sheet of the average oil company.

Think of levying an assessment which raised \$162,221.25, and then in a few months levying another for a like sum. Surely the money must come easy, and there is no question but that its expenditure is just as easy.

The officers and directors are: E. L. Doheny, president; C. A. Canfield, vice-president; C. E. Herwood, second vice-president; Addison Lysle, secretary and treasurer; E. T. Stimson, W. G. Kerckhoff, J. A. Graves, C. Leonardt and C. W. Smith.

This company was incorporated in 1900 under the laws of Arizona with a capital stock of \$10,000,000, shares at \$1 each, of which 5,000,000 were issued for the purchase of their property. This comprises, according to their original prospectus, about 400,000 acres of land near Tampico, Mexico, containing a large area of petroleum bearing lands. It was the understanding at the time that \$500,000 was put up by the original investors for the purchase of this property. After certain preliminary work was done extensive improvements and developments were undertaken largely during the year of 1902, and in response to request for statement E. L. Doheny, the president of the company, makes substantially the following statement:

"Our improvements to date have cost in round figures \$536,000. In this outlay we have purchased since August 1, 1902 eleven steel tanks, aggregate capacity, 95,000 barrels, seven miles of railroad, one engine and four cars, warehouse supplies comprising casing, tools, etc., addition to refinery, making capacity 50,000 gallons daily, electric light and power plant with 100 horsepower engine, cooperage plant, machine shop, blacksmith shop, planing mill, ice and cold storage plant, air compressor plant, sixteen mile pipe-line, buildings and live stock. To provide for this an assessment of 3 cents per share was levied in August last and entirely paid in, and we are now owing on current accounts \$65,000 and have on hand in Mexican silver, \$20,000 and in United States money \$18,000. To provide for our indebtedness and additional funds for the prosecution of the work, we have levied an additional assessment of 3 cents per share, payable March next to the amount of 5,412,375. Shares have been issued and after this assessment is paid, we expect soon to be on a dividend-paying basis. We have twelve completed wells with a production of 500 barrels per day which can be sold to net us on the ground, \$1.25 per barrel. Our asphalt plant is equal to handling 1,200 barrels per day. We have added to our holdings 50,000 acres in addition to the original investment and our title is clear to all the property and free of incumbrance. We have extensive beds of natural asphaltum on the property. Our indebtedness is all for merchandise and supplies, for some of which bills have not yet been received and audited. We are not selling the stock."

The balance sheet is as follows:

A. P. Maginnis .....	\$ 110.00	
Capital Stock Account .....		\$10,000,000.00
Treasury Account .....	4,587,625.00	
Land .....	5,057,506.76	
Cash Account .....	28,712.02	
Miscellaneous Tools and Machinery .....	3,894.52	
Stock Account .....	54,870.00	
Miscellaneous Expense .....	1,891.43	
Office Expense .....	305.78	
Salary Account .....	17,475.00	
Bills Payable .....		65,929.71
Ice Plant .....	1,250.00	
Converting and Adjusting Account .....	152,677.93	
Pay Roll Account .....	2,480.59	
Steel Storage Tanks .....	5,167.42	
Miscellaneous Expense in Mexico .....	1,128.83	

Profit and Loss Account .....	\$236,638.68	
Hamler Boiler and Tank Company .....	7,500.00	
Addison Lyle .....	100.00	
Electric Plant .....	2,059.60	
Transfer Charges Account .....		\$ 3.50
Traveling Expense .....	6,412.90	
Pablo Martinez del Rio .....	10,000.00	
Advertising Account .....	23.50	
Interest .....	1,413.58	
Doheny & Canfield .....		1,239.12
Yacht Strae Phyllis .....	5,411.94	
Attorney's Fees in Mexico .....	205.00	
Assessment No. 1 .....		162,221.25
Doheny & Canfield, Trustees .....	197.72	
Live Stock Account .....	2,950.00	
Railroad Spur .....	21,652.72	
B. C. Blake .....	23.55	
W. W. Carre & Company .....	1,000.00	
A. P. Maginnis, Personal .....		300.00
Jos. Sloss .....		120.00
Ella Irene Bradley .....	500.00	
H. R. Nickerson .....	5,000.00	
Mexican Office Expense .....	416.84	
Lumber .....	7,543.96	
Labor in Mexico .....	5,688.35	
Samuel L. Wood .....		10.04
	\$10,229,823.62	\$10,229,823.62

### THE ALTOONA.

A Company that has a 700 Barrel Well in Midway.

The accompanying half-tone is a reproduction of a photograph showing the great well of the Altoona Oil company. This company is, as its name implies, a Pennsylvania corporation, the office and principal stockholders being in Altoona, Pa. The company owns 20 acres of as fine oil land as there is in Kern county, situated in section 25, township 32, range 23.

pride in the success of his company, and as soon as the transportation facilities now in construction are completed, will have one of the biggest and best producing companies in the Sunset-Midway field.

The Burt Refinery company at Beaumont, Texas, is said to have about 1,112,500 barrels of oil in storage. One million barrels of that amount is stored in four earthen tanks, which have a capacity of 250,000 barrels each,



Well of the Altoona Oil Company, in Midway.

The Altoona well was brought in on December 1st of last year. It has a depth of 1494 feet, and was finished without a hitch with only two strings of drive pipe—8 and 10-inch. The well contains 164 feet of prolific oil sand, and when put on the pump, flows steadily at the rate of 700 barrels a day. The oil is 22° gravity oil, and the well on account of the quality and quantity of oil, is one of the best wells in the State.

The Altoona is surrounded by other good wells, notably those of the Mascot, Sunset Coast, Croesus and others. The Manager of the company is Dr. F. P. Hoy, formerly of Altoona, but now a resident of Bakersfield. He has a just

and the balance is stored in three steel tanks that have a capacity of 37,000 barrels each.

### The Pacific Underwriting and Trust Company.

Home office, Parrott Building, San Francisco, Cal.

If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

COMPANIES INCORPORATED under any State Laws desired.

STOCKS and BONDS underwritten. Gold Bonds, interest from two to four per cent, for sale.

Address all communications to the Company at its Home Office.



**WILL TAX OIL.****Chicago to Have a New Bureau of Combustibles.**

A municipal tax on oils and a fire watchman in every lodging house and hotel in Chicago are proposed in an ordinance providing for the establishment of a new bureau of the fire department. The branch is to be known as the bureau of combustibles. The ordinance will be introduced by Alderman L. P. Friestedt.

The ordinance provides for many radical changes. Oil is to be taxed for the reason that the supporters of the ordinance believe those whose business most endangers the safety and property of others should pay a larger proportionate rate of the cost of maintaining the fire department, and it is proposed that the income from such a system shall go directly to the support of the department. It is also made an offense for any insurance company to permit by endorsement on any policy the right to handle combustibles in quantities not permitted by the statute.

The section of the ordinance relating to the taxation of oils reads as follows:

"Any person, company, or corporation engaged in the wholesale importation of petroleum or any of its products into or within the corporate limits shall pay into the treasury of the city of Chicago the sum of 10 cents for every fifty gallons of such petroleum or its products imported into Chicago. Any failure to pay the said taxes

or duty by any of the wholesale oil companies or persons shall be punished by a fine of \$100 for each and every offense."

It is also claimed that various insurance companies have permitted dealers in dangerous materials to store amounts in violation of the building ordinances on the payment of an increased rate for the policy. The ordinance provides for this as follows:

"If any fire insurance company organized under the laws of the state, or any insurance company of any other state, shall indorse upon any policy the right or privilege to keep, deal in, give away, sell, or use any article or compound of a combustible or explosive character the sale of which is made unlawful by any act of the legislature of this state or shall cause or permit such indorsement to be made by others upon their policies of insurance, they shall for each and every offense pay a one of \$500, the amount recovered to revert to the general fund of the fire department."

Except upon the approval of the bureau there shall be limits as to the amount of chemicals and combustible materials such as hemp, flax, resin, varnish and the like, that may be stored in buildings within the city limits.

**Wants More Cars.**

The large amount of oil being hauled has created an enormous demand for oil tanks and cars, and the Southern Pacific R. R. is straining every effort to secure a large supply of these to handle the large traffic.

**FINE TESTIMONIAL.****What An Expert Chemist Says About Bakerafield Asphalt.**

The following is of value as expert testimony as to the adaptability of the asphalt manufactured by the Jewett and Blodgett refinery at Sunset, especially for paving purposes:

SAN FRANCISCO, CAL., April 25, 1902.  
MESSRS. JEWETT & BLODGETT, Bakersfield, Cal.

GENTLEMEN: In accordance with your request I have examined your "D" and "L" grades of asphalt with respect to determining their purity as expressed by degree of solubility in carbon disulphide and the content of non-bituminous organic matter. The examination shows the following:

Total bitumen soluble in carbon disulphide	99.50%
Ash (mineral matter, mainly silica)	.20
Non-bituminous organic matter	.05

Total	100.00%
Loss upon exposure for six hrs. to temp. of 300° F.	1.30%

Total bitumen soluble in disulphide	99.50%
Ash (mineral matter)	.12
Non-bituminous organic matter	.06

Total	100.00%
Loss upon exposure for five hrs. to temp. of 325° F.	3.00%

The above results may be taken as conclusive of the quality of your material as produced in bulk. The small percentage of foreign matter as shown is indicative of high purity in the crude maltha employed and of care in its refining. The very low percentage of organic matter not bituminous is an excellent feature that would tend to insure its lasting qualities where exposed to the elements.

The "D" grade is highly tenacious and ductile. Briquettes made of this grade fluxed with the "L" grade, and of moderately sharp sand, exhibit a much greater resistance to pressure and tearing strain than similar mixtures made with so-called natural asphalts. I consider that the union of the two above grades of asphalt in a paving mixture would by virtue of their physical properties, freedom from organic matter and

low volatility, impart to a pavement exceptional toughness and constancy under extreme of temperature.

Yours respectfully,  
(Signed) ROBERT S. KNIGHT.

**New Under-Reamer.**

The cut on the back cover fully illustrates the Union Under-Reamer entering the casing and showing the Reamer expanded for reaming.

The cutters for this Reamer are so formed that when it is going up and down the well through the casing, the points have a large amount of clearance, so there is no danger of these points catching on the joints of the casing.

When the Reamer passes out the bottom of the casing the cutters expand automatically to their cutting position and close to be pulled out of the well, when drawn against the shoe on the bottom of the casing.

The absence of trips and small weak parts, which soon wear and impair the action of a Reamer is one of the stable features of the "UNION."

Cabling from Odessa, the correspondent of the London Standard reports that despite the refusal of government support and the consequent collapse of the proposed syndicate for the purpose of fighting the Standard Oil company, another attempt is being made to combine all the Bakou oil cases with the view of driving the Standard company out of Great Britain.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each

**INVESTIGATION MEANS INVESTMENT**

By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY****470-471-472 Parrott Building****SAN FRANCISCO, CAL.**



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine Street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY.....MARCH 7, 1903

The oil industry from a business standpoint was

**Good Times** never in as fine shape as at the present time.

Fairly good prices are being paid for the product in the high grade fields where there are pipe-lines to handle the production. The Texas field is now in better shape than at any time since the boom two years ago. Pipe-lines are handling the oil as rapidly as it can be used, and the oil can be handled very cheaply on account of being in close proximity to tide-water. California developments are more active and as soon as transportation facilities are in the proper shape this State will open up some of the most productive fields on the continent. The oil found in Wyoming, Colorado, Oklahoma and the Indian territory is going to take a net work of many hundreds of miles of pipe-lines to handle the product. The same can be said of Kansas, where there are now close to forty wells under way. The product brings \$1.11 at the wells, being the same price as the North Lima product.

The Bakersfield Board of Trade has issued a statement, written by Captain R. Hudnut and

H. W. McCray, showing the benefits accruing from the construction of the proposed Midland-Pacific railroad from Bakersfield to the sea, and showing also how the road could be utilized as the western terminus of a railroad system from the east via Walker's pass into Kern county, and thence westerly to the sea and northerly through the San Joa-

quin valley and Pacheco pass to San Francisco bay.

There is no doubt about the value of the Midland-Pacific. The line of the road runs through a most productive and fertile country and the amount of freight and passenger traffic it would receive would make it a paying proposition from the start.

With its possibilities of becoming a link in a great Eastern railroad system, and a tremendous factor in the development of the oil business both in California and abroad the Midland-Pacific presents most inviting opportunities for the investment of capital, especially that class of capital attracted by feasible and practical railroad propositions.

The Midland-Pacific scheme is a good one. None better could be

## FUEL OIL ECONOMY.

Facts That Should Be Known By All Oil Consumers.

W. D. M. HOWARD, M. E.

Steam-users contemplating the adoption of oil as a fuel more often ask whether the supply of oil is permanent, and if satisfactory arrangements can be made for a constant and sure supply, rather than will the use of oil under given conditions be a matter of economy.

In reply to this there can be no doubt that commercial enterprise now needs only the stimulus of demand to organize distributing stations, while the methods of consumption on a large scale need only the attention of engineers for their development.

With the composition of various

and therefore volatilizes them at temperatures below those at which sets in the cracking process. Steam at from 500° to 600° Fahrenheit, or even lower, in a properly constructed burner, produces this desired result, and delivers the fuel in vapor form at the point of atomization, thus presenting it in the most suitable condition for complete combustion in boiler-furnaces. It is obvious that the most successful apparatus must be that which accomplishes this object with the smallest expenditure of heat. As the petroleum vapor depends entirely on temperature, the furnace arrangements should be such as to raise the temperature at the point of liberation of the vapor to the highest degree.

As a vehicle for heat in the process of distillation, air is not so convenient as steam, nor does it possess its solvent property. Moreover, upon the expansion of air when liberated at the burner-tip, it lowers the temperature of the oil vapor and recondensation takes place, while steam, if dry upon expansion, breaks the oil vapor into a finely divided state. The presence of water in the oil not only causes an actual loss of heat but also interferes with the conditions of perfect combustion by reducing the temperature of the combustible vapor. This makes the flame longer and removes the point of highest temperature farther into the furnace, thus rendering a large portion of its heating surface useless and raising the temperature of the combustion-chamber to a point which may injure its material, besides wasting a large portion of the heat generated by producing combustion in the smoke-box and funnel.

Since the first effect of the furnace heat on a petroleum jet is to liberate hydrocarbon vapors, igniting them on the outer surface of the jet, thereby raising the temperature of the whole of the jet to the point necessary to liberate the combustible gases, it is obvious that the shape of the flame and its surroundings should be such as to produce as high a temperature at the burner-tip as possible. This increases the rate of combustion by raising the temperature of the vapors.

It is probable that when an oil-burner is burning under proper condition to reach the most efficient temperature, carbonic monoxide, carbonic dioxide, hydrogen and water are completely consumed without change. The result is, that for the first few inches of the flame we have an opaque or semi-transparent flame tending to violet, while the remainder is a highly incandescent white, shading into red at the end. In incomplete combustion the violet is never visible. The balance of the flame is of a dark-red tinge with a smoky fringe as in a fan-shaped flame where the temperature of the vapor is greatly lowered by coming in contact with large surfaces of cold air.

There are a number of localities in New Mexico where the strongest indications of oil are found and it is thought that one or two of these will eventually prove to be producing fields, but there will probably be some time and much money spent before the wells materialize.

## Big Pipe Line In Operation.

By the time this edition of the PACIFIC OIL REPORTER reaches its readers, oil will have commenced to flow in the great pipe line from Kern county to the bay at Point Richmond.

Although the line is not yet entirely finished it will be completed by the time the oil in the pipe reaches this end of the line. The first section of the line extends from Bakersfield to Corcoran, in Tulare county, 26 miles from the beginning of the pipe-line. Here the oil will be stored and heated and passed on to the second section of the line.

The Point Richmond end of the line is nearly completed. The pipe is all distributed and the trenches are dug. Bad weather has delayed the laying of the pipe. The pipe and material for a 26 mile pipe-line extending from the Coalinga oil field to the main Kern-Point Richmond line is now on its way from the East. It will arrive this month and the work of construction will commence at once. Tankage in the Coalinga field is already being erected.

The fact that oil has commenced to flow from Bakersfield to the sea marks a great era in the history of the progress and prosperity of California, and is an event the importance of which cannot be overestimated.

offered. Its success depends solely on the amount of capital that can be raised.

It is to be hoped the promoters of the Midland-Pacific are strong enough financially, and have such business standing and influence as will attract and invite the attention and backing of home and outside capital.

If the promoters and directors of this great enterprise are all right the proposition ought to and undoubtedly will succeed.

The Chicago-Colorado Oil company, made up mostly of Colorado Springs capitalists in connection with some citizens of Chicago, have struck oil in the Hartsell district of Colorado.

Subscribe for the PACIFIC OIL REPORTER.

oils the engineer is not so deeply interested as he is in their calorific value and in their behaviour during combustion. Our oils average about 86 per cent carbon and 12 per cent hydrogen. Their calorific value is about 19,000 B. T. U.

The phenomena taking place in the burning of our crude oils delivered by a burner properly adapted to their combustion is closely analogous to those observed in the process of distillation known as the "cracking process," but in the presence of steam, with a proper mixing of the oil, it seems possible to distill practically the whole of the crude product without the precipitation of carbon which the cracking process entails.

This is explained by the phenomenon that steam has the property of lowering the boiling-points of the hydro-carbons with which it is brought in contact,



## A NEW OIL FIELD.

### Vast Territory to Be Opened By the Midland-Pacific Railroad.

#### The Valleys of the Cuyama, Carisa and Elkhorn Show Marvellous Indications of the Presence of Crude Petroleum In Vast Quantities.

HON. C. A. BARLOW.

Vast as are the oil lands of Kern County, and it is conceded that they are the largest and most prolific in this part of the world, oil men will be surprised when they examine the territory lying between Sunset and the harbor of the Midland-Pacific Railroad at Port Harford. Along the line of this railroad for more than one-half of the distance or about fifty miles there can be seen large outcroppings of shale and blue clay and sandstone, and in many places the seepages of oil can be found. C. M. Archibald, of Ashland, Wisconsin, a practical oil man, in com-

crossed right over the mountain into the Carisa valley. In going up the canyon we passed right through the oil territory and had ample opportunity to closely examine the outcroppings that are in this particular place over three miles in width. I can say without hesitation that there will be a great oil field developed in this range of hills that skirt along the north edge of the Cuyama valley, and are only about from two to five miles distant from the railroad now being built. This is not simply an opinion, but is what might be called proven theory, as the strike of the Grand Prize Oil company at the lower end of this belt and that of the Webfoot Oil com-



Contractor Waggy's Force of Graders at Work on the Line of the Midland Pacific Railroad in the Cuyama Valley.

pany with myself, drove all over this country and made a careful examination of the surface indications. It surprised us, and it will surprise anyone who goes over it the first time. For many years I lived in Ventura county, and am more or less conversant with the several localities in that county where oil has been developed. The similarity between the formations in the Cuyama valley and those in Ventura county are very noticeable. In many places one can easily believe that he is in the Sespe canyon or across the Santa Clara river in the hills that have given to the Union Oil company such a vast amount of high-grade oil, the Torrey canyon field.

We travelled down the valley from the Emerson ranch, past the Stubblefield ranch and down to the Cuyama ranch house, and from there four miles further on to where the work is being done of the Midland-Pacific railroad. There I met an old acquaintance in charge, Mr. Breck, of San Luis Obispo, who gave us a cordial welcome. We had the pleasure of taking the first photo of the actual work of building the Midland-Pacific Railroad. The construction is now being carried on across the valley where the ground is as level as a floor, consequently building road bed is easy work. After a good dinner in camp we started again and

pany at the upper end are positive proof that there is oil of very high gravity in this locality.

After crossing the hills into the Carisa valley, and crossing that valley to the hills that divide it from the famous Midway field of Kern county, we found ourselves in the formations that skirt along these foothills, and which time will prove to be another oil belt extending from what is known as "Jobe's ranch," on section 6, 10-24 northwest to a point opposite Simmler postoffice, a distance of about forty miles. These hills are full of shale, sandstone, blue clay and oil sand outcroppings. Oil has been found in two widely separated localities on this belt, and at a depth varying from 187 to 264 feet in depth. All of this territory has been far away from transportation and inaccessible, but with the opening up of the new railroad, will be oil territory, and first-class at that. The oil found there is of high gravity, from 22° to 28°.

This article is already too long, and in closing I want to make this prediction: Within two years after the completion of the Midland-Pacific Railroad, the drill will have experted and proven more oil territory in the Cuyama, Carisa and Elkhorn oil districts than we now have in the famous fields of Kern county.

### An Oil Well Story.

"Did you ever know Jim Tennant?" asks an old Bradford operator in the Toledo Times. "Then you remember he was a great oil scout. He was Captain Jones' spy in the days when mysteries were the order in drilling wild-cat wells.

"Jim made some money in the employ of Jones and concluded that a pretty good idea for him would be to and the coyotes. He went, and in a go West and grow up with the country few years returned to the office of Captain Jones, at Bradford, in quest of a job. He admitted that he had lost all his money and was now ready to go to work at anything that the captain could furnish him to do.

"Jud Haskell was in the office at that time and heard the conversation. Jones turned to Jim and said that Sistrerville was just opening and that it presented favorable opportunities and made this proposition: "You go down there and secure some leases as favorably as possible and drill some wells. I will pay your expenses and all bills incurred in drilling and give you \$60 a month and carry one-eighth in the operations for you."

"This, it is needless to say, pleased Jim very much. Then turning to Haskell, Captain Jones remarked that if he desired to take an interest in the enterprise the way was open for him.

and lost no time in getting a lease and starting a drill. The first well, when completed, started at one thousand barrels a day and kept it up in a very satisfactory manner. Other wells were drilled with almost equal results. Finally one day Tennant came to Bradford to make a report of the condition of his operations. Haskell was present when he came and congratulations passed on all sides. "Now boys," said Captain Jones, "I have always made it a rule to buy out partners whenever I could do so at a reasonable figure and I am ready to do so in this case. I prefer to operate alone anyhow, and if you will give me a reasonable figure on your interests I will buy them to-day." Haskell and Tennant retired for consultation and returned in a short time with a proposition to sell at \$90,000 apiece. "All right," said the captain, "I consider your offer reasonable enough. I will take the interests," and he wrote out a check for each for the sum named.

"The other interesting feature of the proceeding was that Haskell had never had a chance to put a dollar into the enterprise. The first well paid the bills. Tennant departed to Buffalo where he purchased a stock farm in the country close by the city and is living there now in comfort and ease. Haskell invested \$60,000 of the money in Standard Oil Stock at \$200 per share. The same is to-day worth \$700 a share and he still holds them. Both made their money easy. There are some favorable chances in the oil business."

### With Soldiers, It's The Drills

which makes the proficiency of the regiment. You may not realize it, but drills play no small part in the development of a mine. The Norwegian Consolidated Mining Company is constantly adding drills of the most improved make. We will send you a prospectus for the asking, and we feel certain that it will interest you.

C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass.

## Palm Packers



Wall Packer. Bottom Hole.



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## Packing Oil and Gas Wells.

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The Most Successful, Durable and Cheapest Packer on the Market.

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MANUFACTURED BY

**Larkin & Co., BUTLER, PA.**



# PACIFIC COAST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

The Fifteen-three Oil company has levied an assessment of 2 cents per share, payable March 10th.

While cleaning out a number of springs that had become filled with debris during the winter, John Stanton, who resides on the Stanton estate, between Haywards and San Leandro, discovered what may prove to be rich oil deposits. He first discovered the oil floating on the water in one of the many springs situated on the large ranch, and immediately became greatly interested. Upon investigating in the vicinity of the springs he discovered that the petroleum was seeping from the earth in unusual quantities. A further inspection disclosed the fact that other springs in that vicinity were so badly tainted with oil as to make them useless. In fact, Stanton is so confident that he has located an oil bed that he will employ an expert to investigate the seepage to determine the best plan to bore a well.

### ALASKA.

Twenty wells will be drilled between June 1st and December 1st at Cook's Inlet, Alaska, by the English company which brought in a flowing well last year at a depth of 360 feet. The oil is 22° gravity oil, suitable for refining. W. E. Youle, the successful driller, has already sent in an estimate for the drilling of these wells. The agent of the English company is a well known firm at Tacoma, Wash., which has the authority to make contracts for drilling the wells, furnishing transportation, supplies, etc.

### FRESNO.

The outlook for the Coalinga field never looked better. Confidence has returned to the oil operators and development work is the order for the day.

On every hand in the Coalinga district there is evidence of confidence and prosperity, and that district will yet take its place, as it should, as the oil-producing district of the best oils of the State.

The Standard is buying oil in the Coalinga field and contracting for it a year or two ahead, while there is now a strong prospect of the Union running a pipe-line to the coast. The railroad is now furnishing more cars, so that the shipments for February were higher than any previous month.

The Home Oil company at Oil City has had its wells all cleaned out and put under the pump. The Standard Oil company will no doubt not only furnish a means of transportation for the celebrated light oils of this company but will also buy all that can be produced, whereas the wells of this company have nearly all been capped for several years. The same is also true of the Coalinga company (Chanslor & Canfield), who are having their light-oil producing wells gotten ready for pumping.

### KERN

The Dayton well, 9, 32-23, is down over 600 feet.

The Queen is now pumping 500 barrels a day.

The Midland-Pacific road is now graded for over three miles in the Cuyama.

The St. Paul and Sunset will build a 100,000 barrel reservoir in Sunset, and sink more wells.

It is reported that 100,000 barrels of oil were just sold by a company which

operates in the Sunset field at a good figure.

The Mecca, 29, 28-28, has decided to pump its four wells, which have been idle two years on account of the low price of oil.

The Silver Star, a new corporation in which Mrs. Clara Foltz of San Francisco is interested, has just struck oil in its first well. The property adjoins the San Francisco-McKittrick Oil company's land.

The Shamrock well No. 3 at McKittrick came in as a gusher last week Thursday night and was flowing 2,000 barrels a day at noon Saturday. An effort was then being made to get it under control.

The greatest trouble is being had over the lack of cars at McKittrick. Twenty-five go out daily and more are needed. One company recently had orders for seven cars a day. It found it would be fortunate if it got one every other day.

The Kern River Oil company has now twelve wells completed, of these only five have been working for some time. Work was recommenced on the others this week. The company is now filling the four 55,000 barrel tanks for the Southern Pacific at McKittrick.

The Boston and Sunset Oil company has purchased a valuable tract of land, which is surrounded by some of the best wells in the heart of the Sunset oil fields, the Alameda on the north, the St. Paul and Sunset on the south, and the Crown and Queen on the east.

Another large Sunset producer was brought in by the Shafter well just east of the Queen property, while the casing is being sunk deeper into the oil sands, the well is flowing at the rate of 300 to 400 barrels per day. This again extends and proves the great basin of oil in the Sunset field.

The Arcata, in Midway, 31, 32-24, is going deeper with the expectation of striking a still more prolific sand. The drill is now down over 1300 feet and is working in blue clay—a formation usually found just above the oil sand line. The prospects are regarded as flattering for a good well at an early date.

The Crown Oil company of Seattle, which adjoins the Queen property on the west has placed orders for settling and storage tanks, and is preparing to ship oil. This company has also a great producer, the 7½ inch casing being 167 feet in the oil strata. Arrangements are also being made for Crown well No. 2.

The Southwestern Refinery company is pushing work on its refinery at Kern River. Buildings are going up rapidly on the ground. Material for the stills and machinery is now enroute from the East and will be installed as soon as received. The company is also constructing a large reservoir for water. The capacity of the refinery is to be 1,200 barrels a day.

The properties of the California and Colorado, and the Wichita Oil companies, Sunset district, have been consolidated and henceforth will be known as the Federal Crude Oil company. The stockholders in the new corporation are principally Colorado parties and the intention is to resume operations as soon as more convenient facilities are provided for delivering the oil at the shipping point.

The Minneapolis capitalists who have invested in Sunset proven oil lands,

have sent out an expert who selected a tract of land adjoining the St. Paul and Sunset tract on which a fine well was recently brought in. A company was formed known as the Minneapolis and Sunset Oil company. This property is favorably located being one-eighth of a mile from the Jewett and Blodgett refinery, and the spur of the Santa Fe railroad.

Though development work has continued rather brisk at Sunset for a few years past it was not until recently that any effort was made to transport the product of its oil wells to points of consumption. The traffic from the terminus is now increasing at a very satisfactory pace and at the present rate of progress it will not be long before Sunset will be noted for its oil shipments. Over twenty cars were sent out last week and this number will be increased as soon as more cars are obtainable.

New wells are being sunk all over the fields of Kern county, says the Californian. The Black Jack, on 4, 29-28, is about to begin sinking two or three new wells; it now has four completed. The Perseus, on 29, 28-28 and 11, 28-27, which has been suspended for a time, is just starting up again and will drill two additional wells on its property. The Mecca is also to drill several new wells. The Southern Pacific and Peerless is drilling new ones all the time to supply their enormous demand.

The well lately drilled by the Associated on the Shamrock lease at McKittrick, says the Californian, is an artificial gusher and the thousand barrels that it produces without assistance each day, are raised to the surface by means of the device known as a "packer." The principle of the "packer" is simple, and can be applied to any well where there is a considerable quantity of gas. The tubing is let down into the well below the level of the oil and is shut off with packing so thoroughly that it will sustain a greater pressure without giving more than the weight of a column of oil as high as the length of the tubing. Whatever gas escapes from the oil is retained by the packer and as the gas accumulates, the pressure upon the surface of the oil below increases until finally the force is strong enough to drive the oil up through the open end of the tubing to the ground above.

The California Consolidated Oil Fields company, the new and powerful concern that has taken over the properties of Jewett & Blodgett, will soon be at work. The specifications are now ready for tanks, casing, pipe-line, etc., and inside of ninety days several miles of 10-inch pipe-line will be completed. This line will extend above the wells of the Monarch and California Fortune into Midway. Lateral branches of 8-inch pipe will be constructed as rapidly as possible. Work of enlarging the refinery will commence at once. It will consist of twelve stills, and will have a capacity of refining 1,200

barrels. An immense system of tanks and storage reservoirs will be constructed, and the company will be prepared to handle practically the entire output of the Sunset field. Already it has commenced shipping out oil from the district, and the shipments now average over thirty cars a week. The company has a vast amount of capital behind it. Mr. Walter E. Dowlen is the representative of the foreign syndicate, and has had fifteen years' practical experience in oil fields outside of California. He knows just what he wants, and is a man of enterprise and action. The new company will bring about a new and desirable order of affairs in the Sunset and Midway fields.

### LOS ANGELES.

The Murphy Oil company is erecting another big steel tank of 37,000 barrels capacity at Whittier. It will be located about 300 feet north of their other tank, and is being put up by the Lacy Manufacturing company. The company is also hauling lumber for rigs Nos. 13 and 14, and have also begun work on a private telephone line, which will be over six miles long, and will connect the property of the company with its shipping points at Nietos.

### ORANGE.

Fullerton Consolidated Oil company is building a rig for a new well.

The inability of the transportation companies to meet the demand of Fullerton producers has resulted in a considerable loss to several of the large operators, who were unable to get their market to comply with contracts.

### SANTA BARBARA.

The refinery of the Columbian Oil, Asphalt and Refining company is running steadily and is constantly increasing its output. The capacity of one of the stills has been increased, and a new still is now being set up. The company is also opening up a second asphalt well on the Ashley tract near the refinery, and is still going down on the asphalt well on the Higgins ranch. This well is now 1,424 feet deep. The company is finding a ready sale for its distillates and is turning out large quantities of superior asphalt.

The Union Oil company, says the Lompoc Record, has determined to put two new drilling plants at work testing or proving the territory under bond. If as great success rewards these efforts as did the first drilling by Mr. Hill in Purissima canyon, we may hope to see a large number of rigs dotting the vast region under control of this powerful monied institution, which has in contemplation, if the output of oil warrants, a pipe-line to the old wharf site, with great reservoirs on the bluff above from which oil tanked steamers will be loaded while riding at anchor, a mile or so out. The submerged pipe process adopted by the company for loading steamers does



Let us send you facts about the Halfmoon Bay Oil Field, that produces the highest grade refining oil found in California. We handle the stocks of developing companies.



away with the costly wharf and makes it possible to load the crude product at any point along the coast. A refinery is among the possibilities, but not until the output justifies the expenditure.

There is no cessation in the influx of oilmen from all parts of the country into the region about Lompoc. This field is being looked over most critically by many not connected with the Union Oil company, with a view of investing if prices suit. Some have an idea that the Union company has secured all the oil bearing territory. As that question is only determined by the drill, there will be found many who believe and think it is quite probable oil will be as readily secured south as north of the river. Already investigation is going on with a view to boring along the ocean front where bodies of oil shale are plentiful and where oil exudations have been discovered. Oil like gold, is where you find it. The entire formation between the Gaviota and the Santa Maria river varies but little, except that at some points the surface indications are better for oil than others. Prospecting with the drill will soon determine the value of the south side for oil.

#### SANTA CLARA.

The new well of the Watsonville Oil company is flowing at the rate of twenty-five barrels an hour. Some of the directors thought it good for 400 barrels a day.

The Alberta Oil company, which drilled a well 900 feet unsuccessfully near Sargents over a year ago, has been encouraged by the strike of the Watsonville Oil company, and will soon drill another well west of the first.

#### SAN LUIS OBISPO.

The Board of Directors of the Brookshire Oil company held an important meeting at San Luis Obispo, last week. It was found that more than \$12,000 worth of stock had been sold since the organization. A Standard drilling outfit has been purchased and is now being moved into the property. Drilling will be begun as soon as the derrick can be set up. The recent excitement over new oil struck in the vicinity of Lompoc and Santa Maria has increased.

#### VENTURA.

There is a movement in oil that bodes good to Ventura, says the Free Press. Arrangements are making by the Standard Oil company, which of course controls the fields worth having, to open up, not only all the producing wells in Ventura county at Santa Paula and all the way up to and including Pico Canyon and other Newhall sections, but also to drill many new wells. There is a great demand for light oils, and Ventura county produces this quality of oil to the exclusion of almost all other kinds, though there is plenty of the heavier grades also. But light oil just now is what the world wants and what this county has in abundance. It has been several years since the Standard acquired the Pico Canyon property from the Pacific Coast Oil company, and since the acquirement the wells have been closed down. All are to be opened up now. The work to be done will be the most extensive ever undertaken at Pico.

The total number of oil wells which have been started in the Boulder, Colo., field is 150, and the total daily output at present is 150 barrels, according to the statement of C. H. McVey, manager of the Otero. The Otero is now pumping 450 barrels a week, and has never stopped since it started in September.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

### Chiefly Explanatory.

San Francisco, March 5, 1903.

EDITOR PACIFIC OIL REPORTER

—Dear Sir: Your recent issue February 28th contains an article entitled "Prophetic Address" by R. W. Gorrill, delivered at Bakersfield, October 1888. The statement that "the people of Kern county had no idea that millions upon millions were lying underneath and they did not know it" is erroneous and does not do justice to the original promoters of Kern county oil who showed their faith in the territory by putting up their money and staying with it. The credit is due to Jewett & Blodget and the Columbia Oil company of Bakersfield, the Union Oil company of Georgia, Judge Lovejoy and associates of Tulare, who commenced active operations in the McKittrick field in 1877. Their early efforts were not very productive, but the oil sand was reached, which encouraged the operators to believe that deeper and farther down the anticline, as was proven in the southern counties, they also would get better results. I was drilling for Jewett & Blodget during the experimental stages of the McKittrick and Sunset fields, and well I know how they sacrificed during the money panic to get coin to prosecute developments. Mr. Gorrill's prophetic address in 1888 had the reverse from a stimulating effect to the operations then being prosecuted because of the fact that no part of the \$50,000 he then had for the purpose was ever invested in the land where "millions upon millions were to be found."

Your article states that Mr. Gorrill was "selected by the Government to visit distant lands and report as to the opportunities they presented for the development of minerals and oil". I can find no report of these visits and did not know that our government took such a lively interest in foreign countries and so little in our own. Your article also states that Mr. Gorrill who "expended \$60,000 in Colusa county and is undaunted by his experience there is now looking for other regions." The average reader would take it that such an amount expended with the intelligence and foresight of an oil expert, "who can read a page of nature like a book" that further expenditure in old Colusa would be very risky. Colusa county is not an exception; there are many productive fields to-day whose edges were riddled like a pepper-box before the true and productive oil sand was reached. The Gorrill well on Sand creek, is several miles from the anticline and the nearest oil seepage, and if the oil sand were there it could not be reached under a mile or more deep. Several miles northwest from the Gorrill well is found oil sand and oil outcroppings. Two or three attempts have been made there to reach the formation but the operators have become discouraged and operations are now shut down because of the depreciating effect of the disasters of some experts who locate a well because it is near a railroad and a nice level place for the rig. It would be better for Colusa or any new development if the losses and failures in wildcatting were borne

in silence rather than advertise them.

The money was furnished for the Gorrill well by a San Francisco capitalist who prefers to bear his loss in silence rather than put a stone in the way of Colusa's future development.

W. E. YOUR.

### CAN BE REFINED.

California Oil Found to Have Good Refining Qualities.

The Standard Oil company has ascertained after much experimenting that the crude oil of California is much better adapted to the manufacture of kerosene than was at first suspected, and it has decided to turn out that product to a greater extent than had been thought possible. It has, however, ordered its agents to make contracts for oil wherever they can find sellers, no limit being placed on the quantity to be tied up.

The big company, having found that it can profitably convert the local oil into illuminants than to pay freight across the continent, will thus become a greater consumer than ever, a most fortunate circumstance, for that means that the market will be extended and the price accordingly advanced.

With the order directing representatives to tie up more oil goes the explanatory statement that the amount now available does not meet the requirements of the Point Richmond refinery, and the contracts already entered into for the furnishing of oil for purposes of fuel.

### You Will Pardon The Suggestion.

but again we feel compelled to call your attention to the fact that the price of shares in the Norwegian Consolidated Mining Company will soon be advanced from the present price of 50 cents. When the present issue is exhausted, the price will advance without further notice, so if you chance to be interested in the least, we would respectfully advise you to commence investigation as soon as possible.

C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass.

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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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318 Pine Street San Francisco, Cal.



## THE COALINGA FIELD.

### The Outlook for the Oil Industry is Very Favorable.

### The Fresno and Hanford Papers Speak of the Future Very Hopefully and Predict Great Things for the District and Its Oil Companies.

The PACIFIC OIL REPORTER has again and again called attention to the growing importance of the Coalinga oil field, and has prophesied that with proper development Coalinga would rank the equal of any oil field in California, not only in the quality but in the quantity of oil produced.

Considerable apathy has been shown regarding the importan- e

and piped directly to the reservoirs. The railroads will be called on to increase their facilities for handling the oil. As a result there will be a great increase in the amount of oil taken from the Coalinga wells, and, it is believed, the opening up of many new wells.

"An accredited representative of the company was in Fresno yesterday, and last night to a republican reporter stated that some work is already being done, one storage tank being in process of construction. Material for the balance of the work has already been ordered, and it will go rapidly ahead.

"Our former manager in charge of

is a big undertaking, but we have confidence in the field, and are going in there on a big scale."

(The Fresno Republican is wrong in this statement. A pipe line, 26 miles long, will soon be built to connect the Coalinga field with the main Kern county pipe line. Laterals from this main Coalinga line will spread to all portions of the field. Material for this line is now on the way from the east, and active construction work will commence at once. Editor PACIFIC OIL REPORTER.)

#### The Hanford Sentinel says:

A Sentinel reporter talked with a Hanford man who is representative of some big holdings that are producing in the Coalinga field, and he stated that to his knowledge the facts as stated concerning the action of the Standard are correct. The coming year will develop Coalinga greatly. While many at this time regard that a small field, wiser ones hold that it soon will be one of the most extensive in the West. The pipe-line once built, facilities for sending the oil to market will solve the greatest perplexity now existing. The report is that the

PORTER by J. M. Nesbit, patent attorney, Park building, Pittsburgh, Pa., from whom printed copies may be procured for 15 cents each:

Well drilling machine, H. H. Everhard, Masillon, O.; 718,112.

Coupling for pump rods, A. E. Bor-ing, Canton, O.; 718,306.

Sand screen for wells, S. Jackson and N. Thompson, Elcampo, Tex.; 718,464.

Deep boring machine, Victor Petit, Stryj, Austria-Hungary; 718,876.

Deep boring tool, F. Buschman, Lub-theen, Germany; 718,909.

Gripping device for well-boring apparatus, H. G. Johnston, Corsicana, Texas, assignor to American Well & Prospecting Co., same place; 718,937.

Oil well cleaner, R. J. Hoffman, Reno, O.; 719,004.

Pneumatic balancing rope tension attachment, H. W. Rank, McDonald, Pa.; 719,370.

Pneumatic well drilling apparatus, same; 719,371.

Tube clamp, J. A. DeVore, Macks-ville, Kansas; 719,444.

Fishing tool, Washington Smith and Lewis Piggott, Belleville, W. Va.; 720,078.

Oil burners: D. H. Mosteller, San Francisco, 718,859. L. H. Lewars, Goldengate, Cal., 719,345.

R. B. Fageol, Des Moines, Iowa, 719,573. J. J. Mc-

Donald, Berkeley, Cal., and A. D. Mc-



Portion of the Coalinga Field.

of this field, and even the Fresno and Kings county papers have paid little attention to this field. Lately these papers have been waking up a little as is shown in the following articles. The Fresno Republican says:

"The Standard Oil company, in spite of all reports to the contrary, is going into the Coalinga oil fields, and proposes to carry on a line of work there similar to that it is doing in the Kern fields. Yesterday rights of way were granted by several Coalinga companies for the Standard to extend its pipe-lines over their territory, and it will not be very long, if all the plans materialize, before every well in the district is tapped by a branch pipe of the company's system.

"Some time ago, a representative was sent into the field, and he, after looking it over pronounced it an unprofitable one and advised the company not to go into it. But another representative was sent there, and, in fact, for some time, two experts in the company's employ have been there, and both express their belief that the country is a second Kern and needs only development to prove its productiveness. The plan of the company is to erect a system of storage reservoirs in the district, and to connect them by pipe-lines with all the wells in the district. Then the output of every well will be bought at a reasonable price

the Coalinga field,' said he, 'had rather pessimistic views as to its extent and productiveness, but after a reasonably careful investigation made on unbiased outside lines, our management decided to enter the field aggressively as a competitor for a fair share of the output. To that end, storage capacity in the way of iron tankage and reservoirs, will in all likelihood, be constructed, so that any excess of production over that which the railroad is capable of hauling, will be taken care of. Increased facilities in the way of car service will eventually be brought about, and a general market will surely be found for the oil that the Coalinga field is destined to produce.'

"When asked as to the feasibility of a branch line from the Coalinga field to connect with the main conduit from the Kern River district to Point Richmond, the Standard oil representative stated that that line would be taxed to its fullest capacity, and that increased car service would have to be depended upon for the present to take care of the field's production, after the proposed storage tanks had been filled.

"Of course," he said, 'if in time the field assumes proportions of enough importance, a pipe-line similar to the one from the Kern fields, will be built from there. That, however, is at present merely a matter of speculation. The present status of the case is that we are getting the rights of way for our pipe-lines and that we have already commenced construction work and have ordered material for much more of it. It

Standard is going to have a great addition to its tankage both on the ground and on the road.

#### Oil Patents Granted.

The following recently granted patents of interest to the petroleum trade are reported expressly for the PACIFIC OIL RE-

Lean, San Francisco, 719,686. J. W. Anderson, San Francisco, 719,716. A. F. Demory, Nacogdoches, Texas, 719,762. C. W. Sievert, Los Angeles, 720,475.

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#### Editorial and Publishing Office

318 Pine Street  
San Francisco, Cal.



## IMPROVED CONDITIONS.

## Marked Improvement in California's Oil Industry.

Everyone in California who is in any way connected with the oil industry understands how much better is the condition of affairs to-day than it was a year ago, and how a new and better era has dawned upon the oil industry which now promises to be the most important of the industries which are adding to the wealth and prosperity of the State.

While we in California understand these things because we look at the existing conditions from a nearby standpoint, and can note the improvements which each day chronicles, it is not often that those at a distance—in the East and in Europe—obtain such a clear view of California oil affairs as to make them realize their steady and rapid improvement.

Consequently it is with great pleasure and satisfaction that the following is reproduced from the Chicago Paint, Oil and Drug Reporter:

"Improved conditions in the petroleum trade have done more for the California oil fields than for any other section. The improvement has come in the matter of transportation largely, though an increased demand for oil has been

an important factor also. At the opening of the year 1902 the surplus of oil in the Los Angeles market was so great that producers were driven to the last resort to maintain prices—curtailment of production. Wells are shut down rather than to pump them at a loss. It was felt that the extreme of dullness had been reached.

"But even the most discouraging circumstances could not put a stop to activity in new production. Large companies that had to increase their production to fill contracts drilled in new wells, new fields were opened and prolific wells brought in, and it was only by the vast amount of suspended work in the Kern county fields and in some of the southern districts that any considerable curtailment was effected.

"Meantime the market was broadening, until now it is estimated that the demand for California oil is equal to the supply. The list of consumers is growing daily. The railroads of the far west are using great quantities of fuel oil; steamships are generally adopting it; refineries are increasing their demands. And the consumption will never be less than it is now. In fact, it is certain to be largely increased.

"Reports from Los Angeles are most reassuring. At the opening of last year producers were on the anxious seat by reason of the accumulation of surplus oil. To make matters worse, they could not agree upon any united course

of action for the betterment of conditions, and ultimately came so far together that they agreed to disagree. About two years ago there were 200,000 barrels of oil in storage, or in tankage in the field. To-day there cannot be said to be a barrel of surplus oil. The comparatively small amount on hand is barely sufficient to answer the demands of the business being done. During December the Central Oil company alone shipped from the Whittier field 250 cars, or about 35,000 to 40,000 barrels of oil, and the total shipments from that field were approximately nearly 70,000 barrels. That represents more than the field's production, the Whittier field not shipping more than 60,000 barrels each month. The reserves have been drawn upon also until surplus oil is becoming a minus quantity. Indeed, within the last month or two Whittier has been drawn upon to complete contracts that could not be filled from the Los Angeles field, and it would be difficult, if not impossible, to-day to contract off-hand for 5,000 barrels a month for the year now in its infancy at the quoted rate. All along the line the tendency is for prices to range upward, and the improved condition of one field implies an improved condition elsewhere.

"With a market opening out on a large scale in the Hawaiian islands, the Philippines and in China and with great rapidity; with prices steadily mounting upward,

and with a feeling of confidence generally being manifested by oil men, the year 1903 is giving every assurance that before its expiration the oil industry of California will be upon a thoroughly stable basis. Proved oil land will from now on increase markedly in value, and the era of wildcatting will be largely relegated to the background.

## Have You Any

## Mining Stock

that is certain to pay you satisfactory dividends?

If you have not write to C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass., and ask them to send you some shares in the Norwegian Consolidated Mining Company, located on the Mother Lode, in the great Gold Mining County of Tuolumne, Cal.

These shares are now worth 50 cents. They will soon be selling for \$1.00.

## Oil Imports Into France.

The imports of various petroleum products into France in 1902 were as follows (in quintals):

	Light Oils.	Heavy Oils.
From America .....	88,670.....	248,206
" Russia.....	11,233.....	381,463
" Roumania and Countries .....	4,185.....	25,875

The duty realized on these imports amounted to 205,743,000 francs.

## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NATURAL OILS, WITHOUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
			Naphtha, including All Lighter Products of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been distilled.	
	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
November, 1902.										
Costa Rica.....					1,350	\$272				
Guatemala.....					4,550	903	200	\$75		
Honduras.....			440	\$66	800	150				
Nicaragua.....					190	40				
Salvador.....			720	131	4,150	820	40	26		
Mexico.....					200	30	579	225		
Chili.....							2,000	515		
Ecuador.....					300	58				
Peru.....							101	57		
Japan.....							307	150		
British Australasia.....							1,663	532		
All Other British Oceanica.....			7,810	882	140	28				
German Oceanica.....							416	229		
Alaska.....					2,131	328	1,080	430		
Hawaii.....	1,364,000	\$43,100	23,377	3,074	107,581	15,265	11,203	5,059		
Tutuila.....					1,360	280				
Total.....	1,364,000	\$43,100	32,347	\$4,153	122,752	\$18,174	\$17,589	\$7,298		
December, 1902.										
Costa Rica.....					900	\$194				
Guatemala.....					3,970	786				
Honduras.....			1,160	\$235	500	107	319	\$131		
Nicaragua.....					10,000	2,050				
Salvador.....					6,360	1,072	130	40		
Mexico.....					200	35	280	98		
Chili.....							1,717	377		
Ecuador.....			1,580	291						
British Australasia.....							1,067	265		
French Oceanica.....					1,050	232				
Alaska.....					550	116				
Hawaiian Islands.....			38,840	4,688	93,600	12,773	12,798	4,742		
Total.....			41,580	\$5,214	117,130	\$17,365	16,311	\$5,653		
January, 1903.										
British Columbia.....					500	\$117				
Costa Rica.....			1,210	\$152	40	7	71	\$44		
Guatemala.....					3,450	724	2,735	932		
Honduras.....					900					
Salvador.....			20	6	6,460	1,175	500	174		
Mexico.....					150	26	204	125		
Ecuador.....			350	80						
French Oceanica.....					370	84	10	6		
German Oceanica.....			10,890	1,223	3,000	683	205	112		
British Australasia.....							1,990	482		
Alaska.....					500	113	505	318		
Hawaii.....	1,452,000	\$43,400	10,306	1,827	32,550	6,987	13,119	5,849		
Tutuila.....					330	83				
Total.....	1,452,000	\$43,400	22,776	\$3,288	48,250	\$10,209	19,339	\$8,042		



## OIL TESTS.

## How Anyone Can Test the Presence of Oil.

The Nebraska state geological survey has endeavored to find means whereby any farmer may make a satisfactory test of petroleum indications at home. Most of the "oil show" on the pools results from a film of red iron rust. As water passes through the soil it dissolves some of the iron in it. In this condition it is clear and altogether invisible, but as soon as it comes to the surface in springs, streams, and pools the iron is changed to red iron rust by coming into contact with the oxygen of the air. This exactly imitates oil on water.

A simple test is to try to collect a jar of the oil, and if it is petroleum, oil will rise to the top. If there is as much oil floating on water as is reported from certain localities, it will make grease spots on white paper laid upon it. The most sensitive test tried as yet, given by a noted chemist, is a test easily applied anywhere but is one of such extreme sensitiveness as to render it useless in clumsy hands. Therefore those who try it are warned to exercise care. Take a bit of common gum camphor about the size of a small pin-head; flatten it out between sheets of clean writing paper; never touch with the hand or any other oily or moist thing; then drop upon the water to be tested. If the water contains oil the camphor gum will stand still, if not it will be active and will spin about over the surface of the water. To show how sensitive the test is if a pin or knife blade be passed through the hair and touched to the water, the camphor will instantly become inactive. Hence the slightest trace of petroleum is readily detected, but utensils free from oil must invariably be used.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, March 3:

APOLLO.		
2,000 at	31	\$ 620 00
400 at	32	128 00
AZTEC.		
100 at	90	90 00
CALIFORNIA STANDARD.		
100 at	15	15 00
600 at	16	96 00
CARIBOU.		
200 at	90	180 00
200 at	95	190 00
FOUR.		
600 at	69	414 00
200 at	68	136 00
HANFORD.		
10 at 120 00		1,200 00
1 at 115 00		115 00
HOME OIL.		
200 at 3 10		620 00
750 at 3 15		787 50
200 at 3 20		640 00
45 at 3 25		146 25
INDEPENDENCE.		
2,500 at 14		350 00
2,000 at 14 (S 30)		280 00
8,500 at 13		1,105 00
JUNCTION.		
3,500 at 11		385 00
500 at 10 (S 90)		50 00

## KERN RIVER OIL.

30 at 14 00	420 00
10 at 14 50	145 00

## LION.

1,000 at 09	90 00
1,000 at 09 (B 90)	90 00

## MONARCH.

200 at 34	68 00
300 at 35	105 00

## MONTE CRISTO.

100 at 1 37 1/2	137 50
700 at 1 37 1/2 (S 90)	953 50
200 at 1 40	280 00

## OCCIDENTAL OIL.

900 at 18	162 00
1,000 at 19	190 00
500 at 20	100 00

## OIL CITY PETROLEUM.

4,700 at 31	1,457 00
2,100 at 30	630 00
700 at 29	203 00
400 at 28	112 00
1,000 at 32	320 00

## PEERLESS.

5 at 16 25	81 25
95 at 16 00	1,520 00

## REED CRUDE.

1,000 at 33	330 00
1,000 at 33 (S 50)	330 00

## SAN JOAQUIN.

25 at 7 75	193 75
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## SENATOR.

120 at 65	78 00
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## S. F. &amp; MCKITTRICK OIL.

50 at 2 75	137 50
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## SOVEREIGN.

1,100 at 42	462 00
500 at 44	220 00
400 at 46	184 00
800 at 45	360 00
800 at 41	328 00

## STERLING.

100 at 3 55 (S 60)	355 00
100 at 3 60 (S 90)	360 00
100 at 3 60	360 00
475 at 3 65	1,733 75
2,250 at 3 70	8,325 00
100 at 3 55	355 00
1,000 at 3 55 (S 30)	3,550 00

## THIRTY-THREE.

100 at 9 00 (S 30)	900 00
--------------------	--------

## TWENTY-EIGHT.

60 at 3 05	183 00
200 at 2 85	570 00
100 at 3 00 (B 30)	300 00
400 at 2 90	1,160 00
400 at 2 95	1,180 00
200 at 3 00	600 00

48,426 Shares Amount \$37,167.00

## CENTRAL LIGHT &amp; POWER.

100 at 4 50	450 00
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## CHUTES CO.

850 at 8 25	7,012 50
-------------	----------

## EQUITABLE (POOL) GAS.

50 at 4 25	212 50
------------	--------

1,000 Shares Amount \$7,675 00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Apollo	.34	.40
Aztec	.87 1/2	.95
Bear Flag	.05	.10
California Standard		.16
Caribou	.80	.90
Central Point Con.		.90
Chicago Crude		.25
Clairmont	.15	.23
Fanna	.15	.20
Four	.65	.70
Hanford	110.00	120.00
Home	3.15	3.20
Imperial	18.25	21.00
Independence	.13	.14
Junction		.12
Kern		.50
Kern River		15.00
Lion	.08	.09
Monarch of Arizona	.30	.35
Monte Cristo	1.37 1/2	
Occidental of West Va	.11	.19
Oil City Petroleum	.31	.33
Peerless	15.00	
Reed Crude	.32	.34
S. F. & McKittrick	2.50	2.75
San Joaquin O. & D.		7.75
Sovereign	.40	.42
Sterling	3.50	3.55
Thirty-three	8.50	10.00
Twenty-eight	2.90	2.95
Union		70.00
United Petroleum	117.00	120.00
West Shore	3.00	5.00
Wolverine		.60

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## APPLICATION FOR CHANGE OF NAME.

In the Superior Court of the City and County of San Francisco, State of California. No. 94083, Department No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

To the Honorable, the Superior Court of the State of California in and for the

City and County of San Francisco:

The above named Sinaloa Mining Company, a corporation, petitioner named herein, applies to the said Superior Court for an order changing the name Sinaloa Mining Company to Los Tecotes Gold Mining Company, and in that behalf aver and set out:

I. That the said Sinaloa Mining Company is a corporation duly incorporated and organized and existing under and by virtue of the laws of the State of California; that the date of the formation of your said petitioner was the 26th day of May, 1885, and the said Sinaloa Mining Company is the present name of your petitioner, and the name to which it is proposed to change the said name of the Sinaloa Mining Company is the Los Tecotes Gold Mining Company; that the principal business of the Sinaloa Mining Company is transacted in the City and County of San Francisco, State of California, and its Articles of Incorporation are duly filed in the office of the County Clerk of said City and County of San Francisco.

II. That the capital stock of said Sinaloa Mining Company consists of Ten Million Dollars (\$10,000,000), divided into One Hundred Thousand shares (100,000) of the par value of One Hundred Dollars (\$100.00) each and of which capital stock twenty-five thousand (25,000) shares have been issued and fully paid up.

III. That the directors of said Sinaloa Mining Company are Geo. S. Montgomery, A. W. Dennett, S. R. Break, M. E. Randolph and R. H. Cross, and at a meeting of the said Board of Directors, duly and regularly held on the 2nd day of February, 1903, at the place of business of the said Sinaloa Mining Company, in the City and County of San Francisco, the said directors duly and regularly resolved and authorized the President and Secretary of the said Sinaloa Mining Company to file with the Clerk of the Superior Court of the City and County of San Francisco, State of California, this petition and application to change the name of said Sinaloa Mining Company to that of the Los Tecotes Gold Mining Company, the said petition to be signed by a majority of the said Board of Directors.

IV. That the members of the Board of Directors of said Sinaloa Mining Company are owners of a large number of shares of the capital stock of said corporation, and together with nearly all, if not all, the stockholders of the said Sinaloa Mining Company, earnestly desire that its name be changed to that of the Los Tecotes Gold Mining Company, for the reasons hereinafter set forth, to-wit:

That the works and mines of said Sinaloa Mining Company are situated in the State of Sinaloa, United States of Mexico, and consist chiefly of the mining property known as "Los Tecotes Mine," which has been worked for centuries and known by the aborigines as Los Tecotes Mine; that the said Sinaloa Mining Company is known as and commonly called in the State of Sinaloa "Los Tecotes Mining Company."

That the name of Sinaloa Mining Company is too general and the property of the company is confused with that of other companies bearing similar names.

That for the above and other reasons it would be for the best interests of said Sinaloa Mining Company and its business would be greatly improved if the change of name herein applied for be effected.

V. That there is no association or corporation in this State or elsewhere using the name of Los Tecotes Gold Mining Company to the best of petitioner's information or belief.

Wherefore your petitioner prays that the name of said corporation, to-wit—Sinaloa Mining Company, be changed to Los Tecotes Gold Mining Company, and that a time be fixed as provided by law for the hearing of this application.

SINALOA MINING COMPANY,

(A Corporation)

By GEO. S. MONTGOMERY,

President.

S. R. BREAK, Secretary.

GEO. S. MONTGOMERY,

A. W. DENNETT,

M. E. RANDOLPH,

S. R. BREAK,

R. H. CROSS,

Constituting a majority of the Board of Directors of the Sinaloa Mining Company, State of California, City and County of San Francisco—ss.

S. R. Break first being duly sworn deposes and says:

That he is an officer, to-wit, the Secretary of the Sinaloa Mining Company, a corporation, petitioner herein; that he has read the foregoing petition and application and knows the contents thereof; that the same is true to his own knowledge except as to the matters which are therein stated on his information and belief, and that as to those matters that he believes it to be true.

S. R. BREAK.

Subscribed and sworn to before me this 2nd day of February, 1903.

CLAY P. GOODING,

Notary Public in and for the City and County of San Francisco, State of California.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk, by H. H. St. Leger, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco.

In the Superior Court of the City and County of San Francisco, State of California. No. 84083 Dept. No. 3.

In the matter of the application of the Sinaloa Mining Company, a corporation, for change of its name to Los Tecotes Gold Mining Company.

Order directing publication of Petition or Application for change of name, etc.

It is hereby ordered that the petition of the above named corporation, Sinaloa Mining Company, for the change of the corporate name to "Los Tecotes Gold Mining Company" which petition or application was filed herein on February 3rd, 1903, be heard at ten o'clock A. M. on the 9th day of March, 1903, by the said Superior Court in Department No. 3 thereof.

It is further ordered that a copy of such petition or application be published for four (4) successive weeks prior to the date of said hearing in "Pacific Oil Reporter," a newspaper printed in the City and County of San Francisco.

Dated February 3rd, 1903.

FRANK J. MURASKY,

Presiding Judge of the Superior Court.

Endorsed: Filed Feb. 3, 1903, Albert B. Mahoney, Clerk, by J. J. Greib, Deputy Clerk.

R. H. Cross, attorney for petitioner, Mills Building, San Francisco, California.



Reports concerning the strike on the Camp rice farm, four miles west of League City, Texas, show that a good flow of first-class oil was struck at a depth of 244 feet. B. W. Camp, on whose 1,000-acre farm the well was sunk, has already bought a great deal more land adjoining his place, and will sink more wells.

The Southern Petroleum club has been formed at Beaumont, Texas, as a social organizer for the purpose of bringing together those interested in the petroleum fields of the South.

The first derricks were of poles, twelve feet base and from twenty-eight to thirty feet high.

It is reported that the Townsend-Downey Shipbuilding company have been commissioned by the Emperor William to build a new yacht, to be heated by petroleum.

It has been proposed to impose a duty of  $\frac{1}{4}$  d a gallon on liquid fuel imported into Australia. Petroleum, destined for purposes other than combustion, will be admitted free of duty.

#### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 2d, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

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School lands may be taken from 160 to 640 acres. Lands abundant in all counties in State. They require no condition as to residence on land or cultivation, and carry all minerals and deposits, only \$100 an acre. Easy terms. Fortunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and cheapest speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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PACIFIC  
INFORMATION  
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The Star Drilling Machine

Cut shows boiler mounted upon frame of machine and oil and gas works. It is usually advisable to have boiler mounted upon trucks separate.



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The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2825 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

One No. 4 Machine has a record of Thirty-two 800-foot holes in one year.

Made in Sizes to Suit Territory.

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AND

## Fishing Tools

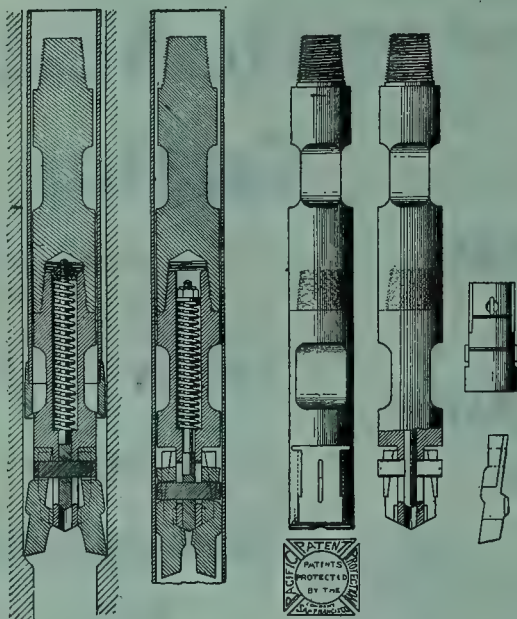
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Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

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## Drilling Rig And Casing for Sale Cheap.....

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Complete, With 23-Horse Power  
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700 feet of 11 5-8 Casing,  
1,064 feet of 8-inch drive-  
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# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 19.

SAN FRANCISCO, CAL., SATURDAY, MARCH 14, 1903.

Price 10 Cents.

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We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

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Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

### 6000 ACRES 6000 ACRES

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts. Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

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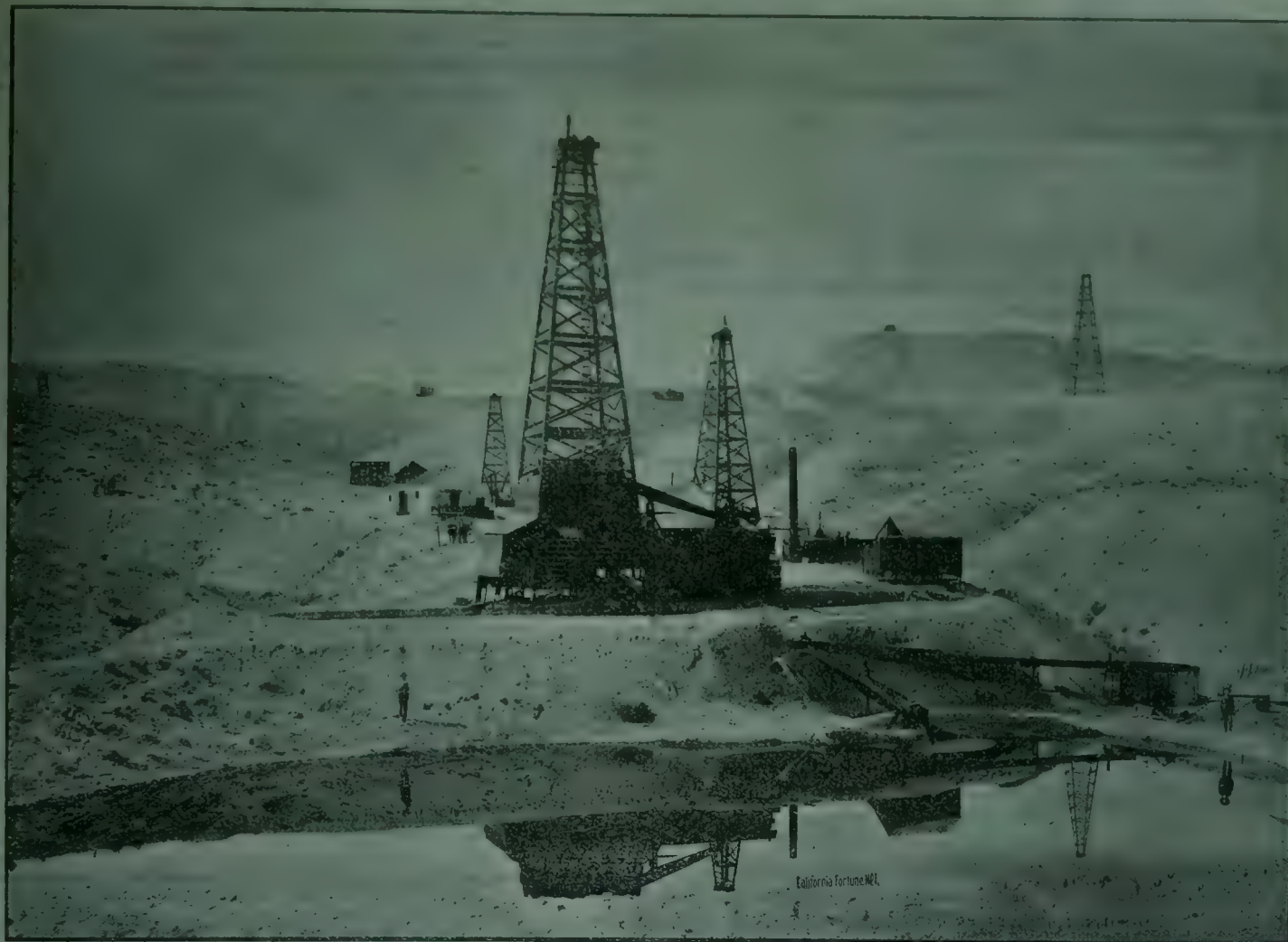


# PACIFIC OIL REPORTER

VOL. 4. No. 19.

SAN FRANCISCO, CAL., SATURDAY, MARCH 14, 1903.

PRICE, TEN CENTS.



Flowing wells of the California Fortune Oil Company, in Sunset Oil District.



The 150,000 barrel reservoir of the California Fortune Oil Company, now nearly half filled with oil flowing from well No. 1.



## GREAT ACTIVITY PREVAILS.

### Everything is Stirring in the Sunset and Midway Oil Fields.

#### Development Work is Progressing, New and Powerful Companies are Organizing, and Pipe-Line and Railroad Enterprises are at Work.

Sunset is now undoubtedly the busiest oil field in California.

In every section, almost on every twenty-acre piece, new derricks are going up, and active preparations are being made for drilling.

Every day's train into Sunset brings seekers after oil properties, some in search of a large acreage, others after a small twenty or forty-acre piece—large enough to keep any company busy for years to come.

It is reported on good authority that during the week one 160-acre tract has been purchased by a San Francisco syndicate which intends to immediately install at least three rigs, and keep them going continuously.

Another syndicate, headed by Fresno capitalists has about closed a deal for a large acreage in the northern portion of the field near the wells of the California Fortune and Monarch companies. This syndicate will also set a number of rigs at work within the next thirty days.

A letter received at this office the first of the week states that a Chicago syndicate has been formed to purchase a large tract in Sunset, and will develop it immediately.

The reason for all this activity is the fact that the transportation problem for the Sunset and Midway field has been solved, and solved in a manner that leaves no room for doubt or misapprehension.

It is now certain that the powerful corporation recently formed largely by English and French capitalists, and known as the California Consolidated Oil Fields company, has abundant capital behind it, and is prepared to carry out without delay its plans to dispose of all the oil that may be offered from the Sunset field. Within three months this company will have its ten-inch pipe-line laid to the northern limit of the Sunset field, and will extend it on into Midway, eight-inch laterals being laid from the main line to the different holdings on either side.

The company will so enlarge the Sunset refinery that this concern alone will be handling 1,500 barrels a day, but the bulk of the oil will be shipped out of the field, as the company is already

reaching out, and will be able to command and supply a vast market in the line of fuel and refining oil.

The Standard Oil company is also intending to enter the field from the northwest by way of McKittrick.

This is not a mere statement of guesswork, but is founded on the fact that the company has had its surveyors in the field marking out a route for a big pipe-line, and in due time will extend a line from McKittrick straight through the proven territory of Midway, which is now shown to be able to produce as good and as large a quantity of oil as can be furnished by any district in the State.

In addition to all this, work on the Midland-Pacific railroad is progressing with all speed and diligence. The graders have nearly finished their contract for the first ten miles of the road, and Mr. Ready, the representative of the banking firm of Kelley, Endicott & Co., of Boston, which has purchased the bonds of the road to the amount of \$2,000,000, states that his company will put up the money for the bonds as fast as it may be needed to pay for construction work. Mr. Ready is now in the field, and with Mr. H. M. McCray, the Bakersfield representative of the Midland-Pacific, and Mr. Isaac E. Blake, the main promoter, has been making a personal and careful examination of the intended route, and also has been looking into the matter of the amount of traffic the road is likely to receive when built.

Mr. Ready during the week has examined the different producing properties in the Sunset and Midway fields and is more than surprised at the amount of freight that can be offered in the way of oil even if no more development work is done.

It is not surprising that a personal examination of the Sunset field alone fills one with astonishment as he then realizes the tremendous possibilities of this field in the line of oil production. The half-tone reproductions of the wells and reservoir of the California Fortune Oil company on the preceding page alone tell the story of what can be expected of Sunset field when transportation is afforded.

This company has three completed wells.

Not one of these wells has been pumped; in fact no pumping plant has been installed on the property. The wells are all capped, and are not supposed to be producing at all. Yet the pressure is so strong, and the yield is so abundant, that from well No. 1 alone one reservoir holding 8,000 barrels is full, and another reservoir 160 feet long by 100 feet wide has been prepared to accommodate the overflow. This reservoir is seen in the lower picture on the preceding page. It is not half full, and yet contains already over 70,000 barrels of superior oil, waiting for the completion of the pipe-line that will soon tap it, and for the completion of the railroad that is being built.

As was said above, these three wells of the California Fortune have not been pumped at all, and the oil that is now in the reservoirs is there in spite of the efforts to keep it confined in the wells. It is estimated that these three wells are easily capable of producing 500 barrels each daily.

What is said of the California Fortune can be said with equal truth of other companies in the Sunset and Midway fields. These are facts that can be demonstrated to any doubter who will take the trouble of visiting the field.

The half-tones on the preceding

page are reproductions of photographs taken last week by Aston Bros. of Bakersfield, and tell at a glance, better than can be told by columns of facts and figures, the capabilities of this territory in the way of oil production.

It is no wonder that capital has taken an interest in this field and is solving the problem of oil transportation. It is no wonder that experienced oil men of other fields have lately interested themselves in this field, have secured large holdings in the heart of the proven territory, and will soon have rigs at work.

We do not believe in "booming" any oil field, but we do say that no territory in California presents greater opportunities for judicious investment of capital, great or small, than the Sunset and Midway oil fields.

#### New Oil Burner.

The Queen Water Pressure Oil burner company has been incorporated. Principal place of business, San Jose. Capital stock, \$25,000, with \$12,500 subscribed, and R. T. Thwaites, George A. Steigler, E. H. Wemple, Louis A. Steigler, E. E. Kivan of San Jose as directors.

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## OIL FUEL ON SHIPS.

### The Change From Coal to Oil Now Becoming General.

#### The Announcement of Widespread Preparations Being Made to Install Oil-Burning Apparatus on Both Atlantic and Pacific Steamers.

In many yards, both in this country and abroad, where steamships are built or repaired, announcement of widespread preparations are being made to install oil-burning apparatus. The latest step in this direction was the recent cable announcement that some vessels of the British navy have started on a cruise burning nothing but oil, including battle-ships and cruisers.

All around New York are to be found ships with the new equipment. One of the vessels which is being transformed is the British Queen, which was so much damaged in the second Hoboken fire that she has been under the hands of the carpenters ever since. Another is the Washtenaw, a tramp of 2300 tons. A small fleet of coastwise traders has been turned into an oil-burning merchant squadron already, and the Standard Oil company is also conducting elaborate experiments.

The Red Star liner Kensington was the first great steamship to cross the Atlantic with oil fuel, making the trip between New York and Antwerp last fall. Beyond saying that the preliminary test was successful, the officers of the International Navigation company made public no details of the experiment, stating that they would do so after some more voyages had been made. The Kensington went out of commission temporarily about that time, and so the additional trips are yet to come. The oil was used in the forward burner, a "single ender," and the flames were applied to the tubes through jets placed at intervals under the boilers. Chief Engineer Perrie was in charge and reported that all the defects evidenced in a previous unsuccessful test had been overcome. The officers of the company, after an investigation, admit that the ex-

periment tended to show that oil was destined to occupy a prominent place as fuel. It is learned that careful comparative tables to show the difference in results obtained from coal and oil were made out each day of the trip, but the figures are being withheld until they have been substantiated further.

The single-ended boiler of the steamship had four furnaces, and the reason the initial experiment was not more expensive was that the vessel was fitted with the induced system of forced draft, which had not had apparatus for burning oil successfully adapted to it. The Kensington, which is a sister ship of the Southwark and of 8669 tons displacement, is expected to solve the problem finally on her next few voyages.

Among oil-burning vessels which have left New York recently is the Anstice, which started for Texas after her coal bunkers had been supplanted by oil tanks. The largest tug in the world, the Luckenbach, burns oil, and has been chartered by a Texas company to transport the new fuel up and down the coast, carrying her total capacity of 25,000 barrels each trip. She makes a speed of 14 knots an hour.

A steamship of 3928 tons displacement, the Strombus, arrived in Boston from Cardiff, burning oil, soon after the Kensington's test trip from Antwerp to New York. The Strombus used about 30 tons of oil a day, and it was stated that 40 tons of coal a day would have been required to maintain the speed she made. It is a question of much difference of opinion among steamship men as to whether coal will be replaced altogether by oil as fuel used for trans-oceanic travel, and even those who argue affirmatively admit that final proofs have not been

forthcoming. On the other side, it is argued that the great recent demand for oil-burning vessels has been due almost altogether to the Texas trade, and that vessels engaging in this trade being enabled to get oil at special rates naturally could better afford to burn it, whereas the general purchaser might not find it as economical as coal.

It is claimed that oil will soon replace coal as fuel on nearly all of the Pacific steamers if tests now being made on the Pacific Mail line prove successful. All of the Oceanic Steamship company's steamers will soon be refitted with oil burners, so successful have been the results with the Alameda and Mariposa. These two steamers are of 3000 tons burden and run to Honolulu and Tahiti. The Sierra, Sonoma and Ventura are soon to be taken off the Australia run for the purpose of refitting them with oil burners. On the recent record breaking trip of the Korea from San Francisco to Honolulu, when the record was lowered over six hours, two experts were on board with a view to acquainting themselves with the working of the vessel and to ascertain what is needed to make her into an oil burner. On the steamers where the oil has been tried it has been found to be more economical, and there is hardly any more danger than with the use of bituminous fuel. The Pacific Mail company is now considering the use of oil on the Korea, and it would not be surprising if a change were made upon her return from the Orient.

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which makes the proficiency of the regiment. You may not realize it, but drills play no small part in the development of a mine. The Norwegian Consolidated Mining Company is constantly adding drills of the most improved make. We will send you a prospectus for the asking, and we feel certain that it will interest you.

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## ILLUMINATING OIL TEST.

The Ralston Measure Passed by the State Senate.

The Ralston oil test bill, which met with such fierce opposition from the oil producers of the State, has passed the State senate, but not as it was originally drawn. In fact the measure has been so altered as to have little semblance of its former self.

As passed the bill provides a flash test of 110° for illuminating oil and carries no reference at all to fuel oil. The following is the essential paragraph of the bill:

"No kerosene or coal shall be manufactured, sold, offered or exposed for sale, which will not stand a flash test of 110° Fahrenheit, at a barometric pressure of 29.92. The test by which the degree of flash test shall be made is the open tagliabue electric cup or one similar in construction and result. Said label, impress, or other mark hereinbefore required to be placed on each barrel, can or vessel containing coal oil or kerosene shall specify the altitude or barometric pressure, of which the guaranteed test has been made."

In closing the discussion of his measure, Senator Ralston said:

"After a great deal of greasing, oiling and refixing, this bill is ready for passage. The flash test on illuminating oil is placed at 110°. I understand from those who are conversant with the use of illuminating oil that some of the oil sent to this State from the East will not come up to the requirements, and we find oil in California which will not stand a flash test of 80°. Many of you have read of the explosions of lamps and the destruction of property by fire—these are occasioned by the use of very low-grade oils. This bill is to prevent the Eastern oil men from making California the dumping ground for low-grade oils which cause loss of life and property."

The vote by which the bill carried was 24 to 10. Senator Emmons of Kern county gave notice of a motion for reconsideration.

#### Declared Dividends.

The following companies declared dividends on March 2nd:

Aztec, 2 cets per share, or \$4,-700; Peerless, 12 cents, or \$12,-000; West Shore, 5 cents, or \$5,000, and Alma, 3 cents, or \$12,-000.

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# 5

## STORES



## PATENT OFFICE IS BUSY.

### Many Inventors of Fuel Oil Burners Applying for Patents.

#### Over One Thousand Patents Already Granted for Oil Burners for the Production Both of Heat and Power, and the Number Increases Daily.

The patent office is doing a very lively business looking into inventions for burning oil for fuel purposes, both for the production of heat and power. There have been granted up to date 1230 patents for using oil as fuel. For the use of gas and vapors 2700 patents have been issued. A Washington paper says: The patent office is now receiving weekly applications for patents of these two classes to the average number of twenty-five, of which about fifteen are for crude oil burners for household purposes, locomotives, steamboats and manufacturing plants. There are two main lines of invention to be utilized for these purposes, which have been patented for many years. One is for supplying the oil mixed with steam for combustion and the other is for turning it into vapor and burning it in that form. These two plans for utilizing oil for fuel are at the base of the multitude of inventions that are recorded in the patent office, and which are coming in there daily. When the problem has been worked out so that oil may be used conveniently for household purposes it will probably be done by improvements on existing devices.

Since the beginning of the coal strike there has been a very perceptible increase in the interest manifested by inventors toward this class of devices. The main ideas connected with the burning of oil for fuel purposes were worked out fifteen years ago, and an attempt was made to put them in practical operation. The oil supply was by many regarded as doubtful of continuance, and there was a good deal of uncertainty felt in regard to the price at which oil could be bought if the supply should continue. It was necessary that a feeling of confidence in the stability of the trade should exist before the expense of providing for burning oil should be entered upon. The New York Central railroad tried the experiment, but practical difficulties were encountered, and they gave it up. Oil cost them \$1.25 a barrel, and coal was not then as dear as it is to-day. Oil in Texas being produced in enormous quantities at 10 cents a barrel, and coal having been increased in price, the whole problem is placed on another basis, and inventors are working energetically to devise

some practical plan. The inquiries of people other than inventors at the patent office are also an indication of the widespread interest that is being taken in the solution of the problem of using crude oil as fuel.

Not a single private residence in Washington is to-day heated by the use of oil. The small oil stoves which can be moved about from room to room are not referred to by this statement. Such stoves are on the principle of having a lamp burning to produce heat. They are used abundantly to help out in the heating of an unusually cold room, but so far as is known to practical heating men, no furnace, hot water or steam heater in the city is operated by the use of oil. A manufacturing plant in South Washington is run by the use of oil as fuel, though such application is not common in the city.

The difficulty in the use of oil for the purpose of operating a heating plant for a house is in the fact that the feeding of the oil to the flame to maintain combustion requires rather an elaborate apparatus. Invention has not brought this operation into such simple form as to make it practicable for the small household. For the inventor who can automatically feed the oil into the furnace in a safe manner to maintain a steady combustion without an elaborate device for doing so there awaits a fortune. Many people believe it will be done eventually. No apparatus to accomplish that purpose is in general use, and that fact is regarded as almost conclusive evidence that not one of them will do it practically. It may be that a very simple rearrangement of some of the devices now patented will in the future accomplish the result being sought. Hundreds of inventors are working toward that end.

#### Big Steel Tanks.

Messrs. Clayton, Son & Co., Ltd., of Leeds, have just completed two steel oil tanks, 68 feet 6 inches by 30 feet deep, for the Caucasian Petroleum Export company, at their depot at Dairycoates, near Hull. The contract has been carried out well within the specified time, and the quality of the work done has given great satisfaction to their customers. It is interesting to note that the contractors claim to have constructed the largest steel tank in the world.

## A NEW OIL MOTOR.

With which the Inventor Asserts He Can Double Power.

Oscar P. Ostergren, of Brooklyn, the designer of Charles R. Flint's fast yacht, the Arrow, and also the designer of a fast torpedo boat destroyer and the holder of many patents, has invented an oil motor for which he claims much.

As described by the New York Herald, the invention is a two cycle engine and gets a power stroke of the piston for every revolution of the shaft, being so adjusted that it is impossible to get a back explosion, because the fuel is fused in at the proper moment and not before. As a result of these conditions, the inventor says, it is possible to reduce the water jacket on the cylinder and run the engine without water cooling appliances. The oil is taken in at the top of the cylinder, vaporized, and its consumption is said to be only one-half pint of oil an hour for each horsepower.

The motor is self-starting and operates without a spark. The inventor explained, that the most important features of his machine were in the construction of the piston and the introduction of air and the cleaning of the piston in such a way that all dead gases are

thrown off, preventing back explosions. The oil is condensed by a coil through the exhaust, heating it to a high temperature before it is inducted into the top of the piston.

The advantages claimed by Mr. Ostergren for his new invention are as follows: Revolutionize ocean traffic and do away with coaling stations, enable automobiles to go at eighty miles an hour as easily as they now go at forty, send fast express trains from New York to San Francisco without taking on a fresh supply of fuel, give street cars extra speed, with noiseless, odorless engines, at greatly reduced expense, and eventually substitute waterless, boilerless engines everywhere for steam and make cheap fuel oil take the place of coal.

#### New Oil Tank Steamer.

A large oil tank steamer was launched in England last month. The vessel is the "Narragansett," and has a carrying capacity of over 11,000 tons of oil. Her length is 531 feet, breadth 63.6 feet, and depth 42 feet, and the oil is carried in sixteen tanks, all below the main deck. She will be driven at a speed of 14 knots by triple expansion engines of 5,500 horsepower, supplied with steamer by six large boilers. The vessel is supplied with pumping power, which will discharge 900 tons of oil an hour, and the whole cargo within twelve hours. She will be engaged in the Atlantic trade.

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Will be pleased to send samples and quotation on all grades from Liquid to the very Hardest.

## JEWETT & BLODGET,

BAKERSFIELD, CAL.



**IMPORTANT DEAL.****The Peerless to Father a New Company in Sunset.**

From reports to its stockholders which the Peerless Oil company sent out this week it is learned the Peerless has purchased for \$60,000 a tract of 120 acres of oil land situate one mile and a half northwesterly from the railway station at Sunset. The land is in T. 22-24, and was obtained from the Pittsburg. It is surrounded by the wells of the Kern Sunset, Tiger, Sunset Center, Maricopa, Federal Crude, Superior, United Crude, and others.

This tract is nearly all proven oil territory, there being good wells to the southeast, to the south, to the west, and to the northwest.

A corporation has been organized under the auspices of the Peerless and under the name of the Fulton Oil company. Its capital stock consists of 100,000 shares of the par value of \$10 each.

The Peerless sells the land to the Fulton Oil company for \$60,000 plus 50,000 shares of the stock of the Fulton Oil company, leaving 50,000 shares of its stock in its treasury to be sold in order to raise the sum of \$60,000 and a sufficient development fund.

The first payment, \$30,000, of the purchase price of said land will be made on March 14, and development work will begin immediately thereafter at the southwest corner of the tract.

Water facilities have already been secured, and an oil pipe-line will be laid to Sunset Station as soon as development is advanced far enough to warrant it.

Twenty thousand shares of the treasury stock of the Fulton Oil company are offered at two dollars per share to the shareholders of the Peerless company, who are requested to send in their orders for stock, accompanied by check, on or before the first day of April, 1903. Should the subscriptions by Peerless stockholders aggregate more than 20,000 shares, said 20,000 shares of offered stock will be distributed pro rata among the subscribing Peerless stockholders.

Peerless stockholders are advised that their subscriptions will not be preferred to those of outsiders unless they are received on or before the first day of April next.

The policies prevailing in the management of Peerless Oil company will prevail in the management of Fulton Oil company.

President John M. Wright, of the Peerless, has spent much time in the field lately in the interest of the new company.

It is stated that the stock of the new company is being taken up very rapidly by the Peerless stockholders, and the outlook is now for an over-subscription. This speaks well for the reputations of those who have managed the success of the Peerless.

Three rigs will be put to work by the Fulton at once, and the Sunset field will receive a new impetus.

**TUBE MILL ENLARGED.**

**\$9,000,000 will be Put in Improvement and Addition.**

The National Tube company, a subsidiary of the United States Steel corporation, will expend \$9,000,000 in additions and improvements to its fourteen plants, commencing as soon as spring opens. At Lorain, O., about \$8,000,000 will be the outlay and over 5,000 men will be given employment. The plant at Benwood, near Wheeling, W. Va., will be remodelled and enlarged. Improvements of an extensive nature will be made at the McKeesport works of the Pennsylvania Tube and Pine Mills, also at the Second avenue and other plants in this city. The Sharon mill will be dismantled and most of its machinery will be shipped to Lorain. These announcements have been made by William B. Schiller, president of the National Tube company. The improvement at Lorain will consist of an addition of two blast furnaces, with a capacity of 600 tons per day each. The ore docks will be largely extended; the rolling mills for the

manufacture of skelp will be put in with ladles of 1,200 tons and new pipe and tube mills to handle the product of the skelp mills will be erected.

The cost of the improvements at McKeesport are not made public, but it is believed that several hundreds of thousands will be expended there in a general way.

**RUSSIAN OUTPUT.**

**Weekly Production of English Companies Operating in Russia.**

Russian Petroleum and Liquid Fuel Co., Ltd. The production for the week ending February 9th was 712,000 poods, or 11,479 tons.

Baku Russian Petroleum Co., Ltd. The production for the week ending February 7th was 440,000 poods, or 7,158 tons.

The European Petroleum Co., Ltd. The production for the week ending February 9th amounted to 207,170 poods, or 3,340 tons.

Spies Petroleum Co., Ltd. The production for the week ending February 8th was 119,235 poods, or 1,923 tons — London Petroleum Review.

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318 Pine Street, San Francisco

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SATURDAY.....MARCH 14, 1903

The Chronicle is making a big  
 and it is to  
**Bituminous Pavement Should be  
 Condemned**

street contractors who have been  
 systematically defrauding the  
 treasury of San Francisco by  
 obtaining thousands of dollars  
 monthly during a long period for

amounts which have been ex-  
 pended, largely, needlessly and  
 fraudulently, in improving the  
 condition of our thoroughfares,  
 the Chronicle and the other city  
 dailies, should note the fact that  
 the kind of pavement used on our  
 streets is not what it should be.

Bituminous rock was undoubt-  
 edly up to a certain period the  
 best pavement that could be ob-  
 tained. It has not, however, been  
 and never can be perfectly satis-  
 factory.

The PACIFIC OIL REPORTER  
 has shown again and again the  
 defects of bituminous rock pave-  
 ment.

This pavement is formed by na-  
 ture from the mixing of liquid as-  
 phalt as it is forced up from be-  
 low, with whatever may lie upon  
 the surface of the earth where the  
 asphalt emerges through the shale  
 formations.

If the surface formation be

rock found in California is true of  
 all other bituminous rock. It is  
 all more or less uneven in its com-  
 position, and even when sorted  
 with greatest care is not able to  
 withstand constant and heavy  
 teaming. When laid this pave-  
 ment will prove soft in spots.

For years, however, this bi-  
 tuminous rock was the best pay-  
 ing material obtainable, and was  
 consequently in general use, and  
 the big street contracting firms  
 secured all the largest and best  
 deposits existing in California  
 along the lines of ocean or rail  
 transportation. Vast quarries  
 were developed, suitable machin-  
 ery was devised for quarrying the  
 rock, preparing it for use on the  
 streets, and an army of men was  
 employed in the quarries and on  
 the streets.

Its use has become general. In  
 San Francisco alone there are 125  
 miles of streets paved with bi-

The new pavement is made of  
 California crude oil, refined in  
 ever increasing quantities by the  
 refineries which are now multi-  
 plying in all our oil fields, and  
 known as California oil as-  
 phaltum.

In spite of its excellence its use  
 has been and is now being fought  
 against vigorously by all the bi-  
 tuminous rock firms, who realize  
 that if the use of crude oil asphalt  
 becomes general there will be no  
 more demand for the product of  
 their bituminous rock quarries,  
 and that property, now valued at  
 millions of dollars, will be com-  
 paratively valueless.

At present bituminous rock,  
 good or bad, costs nothing except  
 for the mining and transportation.  
 Asphalt on the other hand, prop-  
 erly made is worth at the lowest  
 \$12 a ton for "D" grade, \$14 for  
 "C" grade, and \$16 for "B" grade.  
 The grade used generally for pay-  
 ing and similar purposes is the  
 "D" grade.

The aim of the bituminous rock  
 men naturally is to decry the as-  
 phalt pavement. The street con-  
 tractors will lay an asphalt pave-  
 ment when they have to, but as  
 many of them are tied up with  
 the bituminous rock men they  
 discourage every suggestion as to  
 the use of asphalt.

Not only this. A contractor  
 can easily so treat asphalt in its  
 preparation for paving as to ren-  
 der it worthless. In order to be  
 mixed with the proper amounts  
 of sand and lime it has to be  
 heated and melted. If it is heated  
 too much it becomes very brittle  
 when laid, and easily crumbles as  
 a pavement. When this occurs  
 the bituminous rock men will take  
 endless trouble to call attention to  
 such defects and pronounce as-  
 phalt pavements as "no good."

Then if the right proportions of  
 sand and asphalt are not main-  
 tained there is the same result.

A very little trickery, hard to  
 detect, on the part of the con-  
 tractor who stands in with the  
 powerful bituminous rock syndi-  
 cates will ruin a pavement, but  
 the asphalt men and the oil re-  
 finers are the sufferers.

But the battle is now on in  
 good earnest, and the outcome is  
 not hard to foretell.

At present while there are 125  
 miles of bituminous rock pave-  
 ment in San Francisco, there is  
 only one mile of asphalt pave-  
 ment, and some of this is not the  
 real asphalt pavement there be-  
 ing added more or less in spots  
 bituminous rock. The main  
 thoroughfare paved with asphalt  
 is Valencia street, and a small  
 portion of Grant avenue and of  
 Polk street. None of this asphal-  
 tum pavement has been down over  
 a year, and consequently cannot  
 be said to have stood a sufficient  
 test. But thus far it has answered  
 every requirement of a pavement.

The advantages of asphalt over  
 bituminous rock are well under-  
 stood by those who have made  
 close examination of the methods  
 of street paving, and it is only a  
 matter of time when public opin-  
 ion is so strong in favor of the  
 asphalt pavement that no more  
 bituminous rock will be laid on  
 our streets.

Asphalt is the only material  
 that should be used. Properly  
 mixed with the right quality and  
 quantity of sand asphalt is the best  
 of all pavements, and will stand  
 the longest and hardest usage.



Patching the holes in the bituminous rock pavement of Market street, San Francisco. Had California Oil Asphalt Pavement been used the patching process would not have been necessary.

repairing streets paved with bi-  
 tuminous rock when the contracts  
 for this work were granted under  
 the expressed stipulation, agree-  
 ment and bond to keep the streets  
 when paved in repair, free of  
 charge to the charge to the city,  
 for a period of five years.

The Chronicle is to be congratu-  
 lated in its attempts to protect the  
 tax-payers of San Francisco, and  
 compel the street contractors to  
 disgorge their ill-gotten gains,  
 which in the way of street repairs  
 alone amount to many thousands  
 of dollars—how much cannot now  
 be estimated, the amount of the  
 proposed February steal alone be-  
 ing \$1,267.60.

The full amount is doubtless in  
 excess of \$75,000. It is believed  
 steps will be taken which will  
 compel the contractors to disgorge  
 the entire amount of the stealings.

While the Chronicle is agitating  
 the matter of street work, and the

clean, sharp sand, one kind of bi-  
 tuminous rock is formed. This  
 again differs in its composition  
 owing to the different percent-  
 ages of asphalt, and sand con-  
 tained therein. Some rock con-  
 tains so much sand and so little  
 asphalt that it is practically worth-  
 less, and soon crumbles with use.

Then again with the sand may  
 be mixed clay, adobe and other  
 refuse matter, much of which is  
 organic, making the bituminous  
 rock, soft, uneven in durability,  
 subject to wearing in spots when  
 used as pavement, thus making  
 the chuck-holes which abound on  
 all our most used streets.

When these holes appear a gang  
 of street repairers fill up the holes,  
 and patch the streets as best they  
 may. But these patches last but  
 a short time, new holes appear,  
 and the street in a month or two  
 is as uneven as before.

What is true of the bituminous

rock, and in the cities  
 about the bay even more miles of  
 bituminous pavement have been  
 laid.

The amount of money invested  
 in quarries, machinery, etc., now  
 approaches, if not exceeds \$2,000,-  
 000. Immense fortunes have been  
 made out of street work, and the  
 big street contracting firms are  
 among the wealthiest and most in-  
 fluential (politically) corporations  
 of San Francisco, and the State.

Within the last two years an-  
 other paving material has rapidly  
 been coming to the front. Its ex-  
 cellence, the ease with which it  
 can be manufactured and prepared  
 for street and other use, and the  
 practically unlimited amounts  
 which can be supplied, have made  
 this new pavement far more de-  
 sirable than the customary bi-  
 tuminous rock pavement, and  
 threatens to soon drive this latter  
 from the market.



## A COTTON MILL COMPANY.

**A Powerful Corporation Organized in the East to Operate in California.**

**Experienced and Wealthy Cotton Manufacturers are Behind the Enterprise, Which Will Use Vast Amounts of Crude Oil for Fuel Purposes.**

It is sometimes very pleasant to know what Eastern people think of the Pacific coast.

The following from the Putnam, Connecticut, Patriot, tells of a manufacturing enterprise soon to be inaugurated in California, and which will consume a large amount of liquid fuel:

In the memory of thousands of living people the Pacific coast was a wilderness, with an occasional small town on the coast or in some valley settled by missionaries for religious work among the savage Indians. California was ceded to the United States by Mexico in 1847. By the discovery of its gold fields in 1849 it rapidly increased in population, and by the completion of the Pacific railroad it gained importance for its advantages as a commercial, mining, agricultural and horticultural section of the Union, and particularly as a health resort. All these advantages were of a character to insure it great prosperity which it enjoyed surpassed by no other State.

Little consideration was taken of possible trade of importance with the Orient—the distance was too great to be considered of any account, and it did not seem to be needed. By the acquisition of Hawaii, and soon following the Philippine islands, and then the Boxer war in China, aroused a wonderful interest in the possibilities of trade with the 600,000,000 to 800,000,000 semi-barbarous peoples who were thus brought into closer proximity to our Pacific coast cities than to any other civilized commercial and manufacturing country.

It has been practically demonstrated that goods can be shipped cheaper and delivered quicker from California to China, Japan, our own possessions, and other Oriental countries than from elsewhere. This was early seen by our statesman as a promise of a wonderful development of manufacturing and commercial interests on the Pacific side, which in course of time must exceed those of the Atlantic side, as much as the latter does the Pacific side at present. There are abundant grounds to justify these optimistic views, not the least being the great and continuous increase of trade between the two hemispheres.

Men of keen foresight are preparing to take advantage of this magnificent new prospect of trade, and greater business activity is witnessed on the coast cities of not only California, but in Oregon, Washington and on the British side. Manufacturing must receive an inconceivable impetus, as the demands of the hundreds of millions of Oriental natives for our goods must be supplied mainly from this country.

We learn that among the new manufacturing projects to be started in California, one is a cotton mill company, which is being organized in this section, at the head of which are some practical cotton manufacturers of highest standing. The organization is not yet so far completed as to allow their names to be given or the details of the business to be stated. Its outlines, however, are herewith given:

Organization papers for the above named corporation have just been received at Putnam. The business of the corporation is to be the manufacture of fine cotton fabrics and finishing the same. Its charter provides for capitalization of \$500,000, but at present only \$250,000 will be employed. The purpose of the corporation is to produce the maximum quantity at a minimum cost, and with this end in view an ideal plant will be built. The construction will be the most modern and improved, the equipment the very best that money can buy, including the new Draper automatic loom. Some well known practical mill men will manage the enterprise; but it is understood that some Western bankers are to be interested in the business. The names of the various parties are not made public at this time. The plant will probably be built somewhere in California, as the climatic conditions there are as near perfect for the manufacture of cotton as anywhere in the world, and the quantities of fuel oil being found there furnish a valuable fuel at a very low cost. The naturally mechanical Japanese who have had experience on cotton fabrics at home will furnish a high class of help in abundance.

In regard to the above enterprise the San Francisco Chronicle says:

One of the most important considerations in starting a manufacturing plant is the question of cheap fuel. This question California can now beat the world in solving in a satisfactory manner, by the use of oil as liquid fuel. The 12,000,000 barrels of oil which will be consumed this year represent in fact 3,000,000 tons of coal.

[The Chronicle has underestimated these figures. California will consume nearly 20,000,000 barrels of oil this year. Editor PACIFIC OIL REPORTER.]

This is fully one-sixth more than the total amount of coal ever before consumed annually in this State. The decline in the cost of fuel has increased the manufactures of California by the hundred in the past two years. Had it not been for the discovery of oil in California, manufacturers would never have been able to branch out in this way. As it is now, with fuel oil at a price equivalent to \$3 per ton for coal, and possibly to be lower, the incoming manufacturer may not only be sure of holding his own with his Eastern rival, but may enter the field as a competitor.

Help, competent in make-up and plentiful in numbers, is an absolute necessity in such an enterprise as a cotton manufacturing. This the Pacific Coast can supply, and of a more desirable quality perhaps than could be secured in the East. In San Francisco particularly are many of the naturally mechanical Japanese, quick to learn, and many of them having worked on textiles in the factories of Japan before coming to this country. Also the fact of such industries being established in California will be a factor in bringing more of the efficient working classes from the East, many of them but needing the assurance of steady employ-

ment to encourage them to come to California, where the conditions for those in their position in life are so much easier. The question of help is one that can be satisfactorily disposed of.

It is possible that some day California will furnish home-grown cotton in sufficient quantities to be of commercial use, but the possibility is a distant one. Several years ago seed was sent to one or two hundred farmers in the State and some cotton was grown, one man in San Diego succeeding in picking from forty to fifty bales. Some cotton has also been grown in Kern county. But the dryness in the southern part of the State was the hardest thing to contend with. Irrigation could be used, but finding that it cost a good deal to raise even a small amount of cotton, the farmers became discouraged, forgetting that it would cost less to raise a good deal. At present no cotton is grown in California, but the climate and soil have been proved to be capable of producing it.

Though Japan has established a considerable number of cotton spinning plants of late, she is still, on account of the unfitness of the cotton of China, obliged to get practically all of her cotton for making fabrics from this country. This being true, and the fact that the manufactured cotton of India is inferior in quality, as are the goods sold by England in Southern China and other ports, it would seem that California is the spot from which to forward goods from the United States to the immense waiting markets of the Orient. If they can be manufactured in this State, so much the better. Time, needs, conditions and advantages are all favorable for the incoming manufacturer of cotton or any other staple goods. Those with foresight will see that the field now so fully open will be a scrambling ground for all later.

### To Prevent Frosts.

P. D. Band ordered the oil pot system Friday to prevent frosts in his almond orchard. This system will cost him some \$500 when completed and ready for use, but it is a certain preventive and worth more on that account. He will have an oil tank at the railroad and one at his orchard, and procure his oil by the car.—Orland Register.

### Well and Pump.

"A well and a pump form one of the best insurance policies a farmer can have in Tulare county," says the Visalia Times. "The ditches may go dry, but the water within pumping distance is inexhaustible."

With even more force might this be said of a well and a pump in San Joaquin county. The discovery of petroleum in this State has cheapened fuel to such an extent that it is entirely feasible to irrigate a large tract of land with a large pump operated with a small engine burning oil.

In certain parts of the county this method of irrigating is already in successful operation. Hundreds of acres of orchard and vineyard not accessible to an irrigation system have been abundantly watered by means of pumps. There is no possibility of exhausting the supply of water that lies only a short distance below the surface of the ground. Oil-burning engines are now made so simply that almost anyone can start them, and when they are once started they will run all day with practically no attention. The stream of water which a pump will throw is large enough to be used to advantage for irrigating, but it is not so large as to require the services of many men to take care of it. The owner of a small tract of land can irrigate it with a pump and do the most of the work himself.

The Mail has often urged upon the people of this county the advantages of irrigation. In many places the paper's advice has been followed, and the results are fulfilling the expectations of the most enthusiastic irrigator. In some other places, however, the farmers are still raising grain because, as they say, they cannot get water. Such persons need not wait for an expensive system of canals to be constructed. Nature has placed beneath their farms an immense reservoir of water and they can pump it to the surface with little, if any, more expense than would be needed to secure water from an irrigating canal. The transformation of San Joaquin county into a garden need not wait upon the investment of millions of dollars in ditches. Every farmer can solve for himself the problem of how to make his own farm a miniature paradise.—Stockton Mail.

### To Oil Sheets.

It is expected that oil will be applied to the main streets of Sanger in a few days. The road leading south from West Sanger will be graded within a few days, and Sanger will have two good roads leading directly into town.

## Palm Packers

FOR

**Packing  
Oil and Gas  
Wells.**

□□□□□

**The Most Successful,  
Durable and Cheapest  
Packer on the Market.**

□□□□□

MANUFACTURED BY

**Larkin & Co.,  
BUTLER, PA.**



Wall Packer. Bottom Hole.



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### FRESNO.

The El Zumo Puro Oil company struck oil in the second well sunk by that company a few days ago on the leased land of that corporation in the Coalinga district.

#### KERN

At Kern river the Mecca Oil company, which has had four wells idle for over a year, is now putting them on the pump again.

At Sunset, the Arcata, on section 31-32-24, is making good progress with its well, now down 1300 feet. It has struck oil but is going deeper to get, if possible, a better quantity.

The Bakersfield-California Oil company, which already has two wells completed, is now erecting a rig to commence the drilling of No. 3. The property is located on 30-29-28 at the Kern river oil fields.

The Aladin Oil company is finishing its No. 3 and is building the rig for No. 4. This company has determined upon drilling 12 new wells. It is located on section 9-29-28. It is also pumping those wells that are already completed.

The Claremont, now the Union Oil company, on 32-28-28, is now erecting rigs for four additional wells, making eleven in all. The drilling is expected to commence within about ten days. All over the fields business is rushing and new wells are being begun.

The Kern River Oil company, operating on section 4, 29 28, Kern River district, is nearing completion of well No. 8. The well was started with the 11 5/8 casing and the latest on the list will be finished up with the 9 5/8 string. This diameter, considering the depth of sand in that portion of the field, is sufficient guarantee of a good producer. The company will continue development work until at least two more wells are completed. The older wells are attached to the pumping jack and are daily adding to the production of the river field.

A fire last week Wednesday in the Kern river oil fields destroyed the large loading rack of the Standard Oil company, together with three large loaded oil tank cars and a considerable stretch of railroad track. The blaze started from a burning slump hole near the rack, and the oil running over caused it to spread rapidly and in a few minutes the loading rack was in flames. The three oil cars were standing beside the rack, and when the flames reached them explosions followed and the flames

rapidly shot upward some 200 feet in the air, making a scene of grandeur and awe. The dense clouds of smoke and flame could be plainly seen from Bakersfield, and it appeared for a time as though the whole fields were on fire. The loss from the fire is not less than \$4000. The railroad track was burned out for several hundred yards.

#### LOS ANGELES.

Turner Oil company is drilling on No. 6. Conglomerate has made progress slow.

The Whittier Oil and Development company have a 1900 foot hole, with good prospects.

Whittier Crude Oil company is now drilling No. 4. The hole is now 1100 feet deep and has every indication of being a good well.

The 3700 barrel steel tank for the Murphy Oil company is nearly completed. This will give them 96,000 barrels storage capacity.

The boiler house of the Turner Oil company, which was burned a couple of weeks ago, will be replaced by a corrugated iron structure soon. The machinery was not damaged by the fire, although quite a personal property loss was sustained.

The Murphy Oil company is putting up rigs for Nos. 13 and 14. No. 14 is on the west side of section 26, next to the Warner lease. G. J. Richard has the rig building in charge. No. 12 of this company is now 2400 feet deep, has had the sand for about 500 feet and will probably go 100 to 200 feet deeper. Everything points to this well being the best of the field, as it is the deepest. No. 11, the other drilling well of this company, is 1850 feet deep and coming along nicely.

The Whittier Fillmore Oil company has made a plucky fight in this territory and at Fillmore without success until now. The present location was considered a hard proposition by oil men, but everyone has admired the pluck with which the work has been pushed ahead. They have come up with dividends of the Hibernian variety, and said nothing but kept plugging away. Now they have a 5 1/2 hole down 2300 feet, with things looking decidedly greasy. They don't say they have oil, but we all hope that they have, and are waiting for the report after the hole is put in shape and pumped. About 600 feet of the casing will be perforated.

The Home Oil company has finished No. 1 and began pumping it this week. This well takes the

place of the original No. 1, which was a dry hole, and promises to be a good one. It is 1150 feet deep, with 5 1/2 casing. A lot of hard luck has been encountered in puncturing the earth's surface at this particular spot. A string of tools was lost last July; no end of fishing failed to get them, so a smaller string of casing was worked down past and the well finished. No. 15 is 1550 feet deep, with 5 1/2 casing, and still going, in sand, and in good shape to go ahead. No. 16 is 530 feet deep, with 11 5/8, the water is shut off and all ready to go ahead with 9 5/8 casing. No. 17 is being rigged.—Whittier News.

#### MONTEREY.

The Combined Oil Land company will soon be drilling near San Lucas. Everything is in place to commence work.

The oil craze has struck San Ardo. Secret conferences are being held on every corner, oil companies are being formed and claims staked out. Two local companies are known to have been formed.

#### ORANGE.

Oil development is now going on at Fullerton at a rapid pace.

No. 18 on northeast part of Graham & Loftus lease is down 2100 feet, with 7 1/2 casing.

Much development work is under way in Brea canyon, and also on the Puente Oil company's leases.

No. 12 on Graham & Loftus lease, which was deepened from 1500 to 2600 feet, is now flowing about 600 barrels daily.

Thirty-two wells are being drilled in the Fullerton oil fields, and two rigs are in course of construction.

Santa Fe and Hall leases have both just commenced new wells, and the Columbia has started three new wells simultaneously on the Union lease, west of the Loftus wells.

No. 15 on Graham & Loftus lease, which was flowing several hundred barrels daily when first tapped some weeks ago, is now on the pump and has settled down to business, producing about 300 barrels.

#### SAN MATEO.

Tesla Oil company, on Higgins ranch, are down about 600 feet.

Many prominent men have recently looked over the Halfmoon Bay field.

Guiberson, Sallee & Hayne are making satisfactory progress on the deep well on the Purissima.

The Pilarcitos Oil company is making fairly good progress, though seriously handicapped by bad weather.

Debenture Surety company has acquired some valuable holdings in the Halfmoon Bay field, and will begin drilling in May.

The Faxon Gold Bond Oil company has struck heavy gas pressure, with some oil, at 810 feet. They are drilling day and night.

The deep test well of the Wisconsin Gold Bond company, that was recently brought in and shot oil over the top of the derrick, is still continuing to flow.

Mell Kellerman, one of the biggest operators in the Los Angeles and other Southern oil fields, is shipping in an outfit to begin drilling as soon as machinery can be installed.

The well of the San Mateo County Oil company, drilled under contract by Youle & Mahoney, is down about 1135 feet, in considerable oil and with heavy gas pressure. Indications look very good.

The High Gravity Oil company has now associated with it S. Turner, of Los Angeles, a prominent oil man in the Southern fields. They will push development work by drilling deep wells as soon as possible. This company is located on Tunitas creek.



We buy, sell and lease proven oil land in the Halfmoon Bay and other oil fields. We lease proven oil lands, incorporate companies, drill their wells and guarantee oil. We sell stocks of developing companies.

We can sell you a small amount of stock paying 5 per cent per month dividend, par value \$1. Dividend will be increased in April.

We want two firstclass second-hand drilling rigs, with several thousand feet of casing.

On request we will send maps, literature, etc., in reference to above.



## SANTA BARBARA.

The Pinal Oil company has received a lot of perforated casing for well No. 2, which is about to enter the oil sand.

J. B. Treadwell, the pioneer oil man of the Kern field, has acquired 200 acres on the Casmalia ranch and located on the same anticline as the Carreaga field. He is contemplating considerable development work.

There is a great prospect of several organizations of capital for oil development centering about Lompoc if reports are well founded, says the Lompoc Record. Heretofore development has hinged upon the Union Oil company so far as success in securing oil is concerned, with our local company hoping to bring in a well at any time now. The hope of extensive development lies in having numerous organizations operating independently throughout any territory as extensive as this promises to become. There are plenty of opportunities for companies to secure quite large areas of territory presumably as rich in oil as any the Union company have under control. The entire northern half of the Santa Rosa rancho is now pronounced by experts good oil territory, as well as the adjoining Crawford and Drum properties, which blanket the ante-cline. There need be no surprise if within a short time an independent company is found boring at some point in the Drum canyon, where it is believed oil will be reached at no great depth.

## SANTA CLARA.

The Alberta Oil company, which holds a lease on a portion of the Sargent tract, has already erected a derrick and is beginning to bore.

Considerable excitement prevails among the oil men in this State over the recent strike by the Watsonville Oil company of a very promising well at a depth of 675 feet. The oil was struck about February 21. Since that time they have been bailing out the well and it has been producing about 200 barrels daily. This is a remarkable showing, as the drillers were only able to get a foot and a half in the oil sand when the flow of oil and pressure of gas prevented them from going any deeper. At present the well shows no sign of lessening its production. The Watsonville Oil company has been boring in this territory for several years, and prior to this strike bored a number of wells, but failed to get anything more than a showing of oil in the shale. About two years ago J. M. Hendrickson, the noted oil man, was hired by the Watsonville company to superintend the work of drilling. Hendrickson was convinced that the location heretofore selected by the Watsonville company was on the

wrong side of the formation and he therefore moved to a new location, as he was convinced that oil would certainly be found in this territory, but the location would have to be changed in order to reach the proper formation. In accordance with the suggestion they began boring a well about a year ago, which they finally succeeded in getting down to a depth of 715 feet when they struck oil, but owing to bad luck the casing buckled and they had to plug up the well. However, the well in this condition is now flowing about five barrels of oil a day. About three months ago they began boring on the well mentioned before and were rewarded in their efforts by striking at a depth of 675 feet, oil of 19° specific gravity. This strike is regarded by oil men as one of the most important in California, as it establishes the Sargent oil fields as a great oil producing country and already outside capital is coming in.

## UTAH.

From occupying a position second to the Wyoming fields, the Green River oil fields are apt to take first place before the spring has very far advanced, says the Salt Lake Tribune. There can now be but little question that there will be a crowd of Texas oil men in the Green River fields, and that before midsummer nearly 100 drills will be dropping into as many wells. From a rumor which was just faintly heard several weeks ago, it has now become a certainty that the agent of a southern syndicate is securing all the valuable land attainable, and already many blocks of sections have been passed over to it upon which drilling will be started in the near future. In the meantime the Oil City Oil company's rig is pounding away at a rate which is bringing the third sand perceptibly nearer at the end of each shift. New strings of casing have been put into the well, and there is now a dry hole to drill in, and as a consequence from fifteen to thirty feet are being made per day. According to the most experienced experts, driller Phillips has his drill in the older carboniferous geological age, and the drill is nearing the oil stratum, which appears near the surface in San Juan county, and which Col Ellis has proved to be oil-bearing beyond all question. Oil men would not be surprised to hear of a strike at the well at any time, and there is no one of them but would be ready with his congratulations to a company which has done so much to keep alive the interest in the field, making it possible to draw eastern capital to the district. The well is now beyond the 2000 foot mark, and the company has capital enough at its back to push development to a conclusion. Contrary to the general impression, the company is composed largely of Utah men, and it looks at the present time as if to them will go the credit of bringing in the first well in Utah. The management

states that it has supplied all the machinery needed to bring in a well, and that there would be no delay in the work until the desired depth had been gained.

## VENTURA.

The Weldon oil well is down 500 feet. Work has been suspended for a few days on account of the rain. Some trouble has been had with water, but the drillers have cased it off and work is now progressing rapidly.

## WYOMING

B. L. Culver, head driller at the "Bettys" well, reports everything in a flourishing condition.

Acceks Bros. are unusually busy giving options on their valuable oil lands, which are located extensively through the Uinta field. A great many sales are being made at a good figure.

A. A. Perkins, field manager of the Michigan-Wyoming company, reports everything moving on nicely at their well. They are now about 400 feet deep and work is progressing rapidly.

Mr. G. S. Ellinger of Chicago, Ill., was in Evanston part of last week closing several important land deals. He visited several of the wells and left for Portland expressing great satisfaction at the outlook here.

Isherwood & Allard have started a real estate office in the News-Register building, Evanston, and will handle oil lands extensively the coming season. It is understood these gentlemen have some valuable land for sale.

It has been announced that the Woman's Oil company will com-

mence operations in the Uinta field the coming spring, probably in the Spring Valley district. This company is incorporated for \$60,000. Mrs. Mary C. C. Bradford president.

A new feature in the Uinta fields is the Evanston stock exchange, with headquarters in the new Beckwith building. Everything has been fitted up nicely in anticipation of the coming rush in the oil business. The principal officers are Geo. E. Pexton, president; W. J. Cashin, vice-president; L. E. Nebergall, second vice-president, and M. F. White, secretary and treasurer. They are now prepared to answer any and all correspondence regarding the Uinta oil fields.

A great oil strike has been made in the vicinity of Kemmerer which promises to furnish employment for a large force of men and boom things in general for many a day to come. A vast deposit of soft, porous limestone shale, about 40 feet in thickness, has been discovered which crops out frequently on the claim, which dips toward the center of the property at an angle of 15°. This shale is literally soaked with petroleum, and can be mined or quarried in incalculable quantities at very small expense. It lies close to the surface, so that the problem of handling such a gassy substance will not be a difficult one to solve. Crude distillation revealed the presence of from 20 to 25 per cent of heavy paraffine oil suitable for lubricating purposes, or the rock could be used as a natural fuel in lieu of coal. It is believed that freshly quarried samples will reveal 40 to 50 per cent of oil.

## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

These maps are Copyrighted by the publishers, Barlow & Hill, and can only be used by them and their authorized agent in San Francisco, THE PACIFIC OIL REPORTER.

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## MACHINE FOR OILING ROADS.

### Useful Invention by a Supervisor of San Bernardino County.

**By its Use the Necessity of Heating the Oil is Avoided,  
Thus Saving Much Expense, Apparatus,  
Time and Labor.**

Probably no one in the United States has had longer and larger experience in the use of crude oil for improving roads than Mr. J. B. Glover, who as a supervisor of San Bernardino county had charge of the many miles of roads in his district.

A pamphlet recently issued by him gives the results of his experiments, and should be read and studied by every one whose business or whose desire it is to im-

application of cold crude oil in its natural state as well as the crude oil in a heated condition. The inventor's experiments resulted in a machine which was completed April 15th, 1902, and which was thoroughly tested April 19, 1902, in the presence of witnesses competent to judge, and it was by them pronounced a complete success in every particular, and for said device a patent has recently been granted. This machine was the only machine at that date in existence within the knowledge of the inventor that would successfully and economically apply cold crude oil to roadways. There are at this date—

cape through the outlets, which are of such a distance apart as to uniformly distribute the oil on the roadway. The slides are operated by three separate levers, by a man seated at the rear, who by one motion of the lever or levers may lower or raise either or all three of the slides to any desirable point, thereby opening the outlets so that any desirable quantity of oil may be applied to the roadway. These slides are each held in place by three steel guides which are adjusted with screw bolts so that any degree of pressure may be used on the slides and to insure against any undesirable escape of oil.

The connection between the supply and distributing tank is made by two seven-inch metal tubes, one flaring at the lower end, riveted and soldered to the distributing tank and becoming a part of the tank, and the other bolted securely to the supply tank, and constructed with such an angle as to meet the angle of the other, these being but one inch apart, and a connection of these made with an eight-inch strip of heavy ducking wrapped securely around the two metal tubes in a heavy coat of white lead wrapped five or six times around and held by two draw bands on each end of the metal tubes. The outlet from

ways occasioned by the necessarily few plants erected; under the new or cold oil process, a car of oil may be sidetracked at any convenient siding from which the distributing machines are loaded easily and with a very slight expense, by selecting a siding on the railroad near an embankment, or if this cannot be done, an excavation can be made near the siding of sufficient size and depth to receive the distributing device and to allow a gravity flow of the oil from the railroad car to same, and with the ordinary railroad car oil tank connection valve attached to a pipe of suitable size and length with a shut-off valve on the end near the distributor opening. I established two on this plan last season and they proved very satisfactory.

Any further information with reference to matters herein contained, as well as the price of the machine, etc., will be cheerfully and freely furnished by application to J. B. GLOVER, Redlands, Cal.

### New Oil Company.

The Union Annex Oil company has been incorporated. Principal place of business, Los Angeles. Capital stock, \$1,000,000, with \$70,000,000 subscribed and E. T. Earl, W. F. Botsford, J. H. Adams, J. S. Torrance, W. L. Stewart of Los Angeles, and William R. Stuats, John B. Miller of Pasadena as directors.

### Have You Any Mining Stock

that is certain to pay you satisfactory dividends?

If you have not write to C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass., and ask them to send you some shares in the Norwegian Consolidated Mining Company, located on the Mother Lode, in the great Gold Mining County of Tuolumne, Cal.

These shares are now worth 50 cents. They will soon be selling for \$1.00.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## Pacific States Mining and Investment Co.

This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work. Money loaned and interest bearing or dividend-paying investments furnished. Strictest confidence observed. Inquiries attended to. Bank References. Prospectuses of a superior and attractive kind prepared without charge for the literary work to companies placing their stock sales with us. Mining, industrial and agricultural projects wanted. Prompt attention to all correspondence. Send for sample copy of the "Pacific States Investor," an up-to-date financial paper, with rapidly increasing circulation in the United States, Canada, Mexico and all parts of Europe.

### Pacific States Mining and Investment Co.,

326 Post St.,  
San Francisco, Cal.



Twentieth Century Roadmaker.

prove the condition of our roads.

As one result of the long use of oil Mr. Glover invented a machine by which cold oil can be used successfully on the roads. In relation to this machine the pamphlet contains the following:

Recent experiments have demonstrated that even better results can be obtained by the application of cold crude oil than have been obtained by the application of hot oil, and by the use of cold crude oil the expense of heating plants, heating and other expenses incident to heating the oil are thereby eliminated and a very great saving of time, labor and money effected. All devices or machines heretofore made for the application of crude oil to roadways have been constructed for the distribution of heated oil only. This construction unfits said devices for the economical application of cold crude oil, having a low specific gravity and containing from 12 to 15 per cent asphaltum.

The great expense incident to the construction, maintenance and operation of heating plants to prepare hot crude oil for application to roads induced the undersigned to devise a machine especially adapted to the distribution and

December 11, 1902—five of these machines in existence in San Bernardino county and one in Ventura county, all of which have given entire satisfaction in their use during the season just passed.

The machine is so constructed that it can be attached to the wood frame and supply tank of any wagon used for applying oil to roadways, by means of two one-inch-square iron rods encircling and bolted to the machine and also bolted to the wagon or supply tank frame, by which means the machine is suspended one foot above the roadway and directly in the rear of the wagon and within three inches of the wagon wheels (see accompanying photograph illustration.) The distributing tank is six feet long, composed of a piece of eight-inch Standard pipe, machine turned so as to have a smooth outer surface, with eighteen outlets at the bottom of tank, covering five and three-quarters feet with oil at one passage. These outlets are of sufficient size to distribute, by the operation of three separate valves or slides, each covering six outlets, from forty to three hundred and fifty barrels of oil on the roadway.

These valves or slides are made of brass and are also machine turned so as to fit the outer surface of the distributing tank so closely that the oil cannot es-

the supply tank to the distributing tank is opened and closed by a wooden plug, to which is attached with a swivel connection an iron rod one inch in diameter, operated inside the supply tank by passing through a screw nut, which also acts as a guide for the plug, out through the top of the supply tank where it is manipulated with a crank. This shut-off is designed to relieve the necessity of subjecting the machine to a strain of carrying the oil while enroute to and from the points of distribution, as also to assist in diminishing the pressure when on very warm days the oil is heated above normal by the action of the sun, and also in case of accident to the machine to prevent a waste of oil. This is also a part of the patent.

The experience of the past season with the cold oil process for the distribution of oil on roadways without heating it has proved so successful in its method of distribution, effect and results of the cold oil on the roadways thus treated, and more especially in diminishing the expense of the treatment, that heating the oil and expensive heating plants are no longer desirable. To the expense of erecting heating plants, under the heating process, was added the long distance hauling from same to the remote portions of the road-



## A VALUABLE INVENTION.

### Crude Oil Distillate to be Used in Cleansing Raw Wool.

The Old, Costly, Expensive and Complex Methods to be Discarded for a New Process which will Effect a Vast Saving Over the Methods Now in Vogue.

Edgar Baruch, until recently a graduate student in the college of chemistry in the University of California, has had the distinction of inventing a new method of cleansing raw wool, which gives promise of eventually revolutionizing the wool industry in this State if not in the entire country. Discarding the old, costly and complex methods, he has devised a new process in which crude oil distillate performs the important part: This in every experiment tried with it thus far has yielded the most gratifying results, and the young scientist is now of the opinion that in such volatile solvents instead of in alkaline and soapy solutions as heretofore, lies the secret of the proper degreasing of new wool.

During his study for Bachelor of Science degree, which he received in 1901, and for his Master of Science degree, conferred one year later, he had made a special investigation of the woolwashing industry, there being no less than six plants devoted to this work in California, five being in San Francisco alone. He found as a common fault with the old processes, so long in vogue, that they required complicated and costly machinery, expensive chemicals, which could not be regained in the process of washing, and high-priced, skilled labor. In his invention he claims he has done away with all these disadvantages.

Crude oil distillate, boiling between 85° and 90° C., is the volatile solvent chosen by Baruch, it having the important advantages of cheapness, absolute non miscibility with water, thorough dissolving qualities and a low boiling point. The apparatus he has designed has the two important features of cheapness and simplicity. It is practically a large Soxhlet extractor, in which the raw wool is soaked in the solvent until all fat is removed. The machine works automatically, the heat of evaporation carrying the distillate to a point where it can be allowed to flow back by gravity to the extractor and thus be used over again. In consequence, from the labor standpoint, the only effort that is required is in charging the wool into its cage and in manipulating a few valves.

A generous saving, it has been estimated, would be effected by the solvent process to establish-

ments that degrease and work their own wool for worsted purposes. In round numbers this averages 2 cents per pound. It is made: First, in the cost of the soap, with which this process dispenses entirely; second, in a greater yield of the wool fiber, since none of it is dissolved by soap and alkali, as in the old methods; third, in the superior softness and appearance of the finished product; fourth, in the woolfat and the potash recovered. It is this great saving of hitherto wasted products that is the strong point in Baruch's invention. In regard to this matter he says:

"The cost of the degreasing operation, including labor, solvent power, interest, etc., would be more than covered by the soap saved. Moreover, it might be well to call attention to the fact that out of such wools as are worked in the United States an average of 15 per cent of the fat can be recovered by the solvent process, which, at a minimum price of 3 cents per pound, would bring 45 cents for every 100 pounds of wool degreased; and if to this is added the value of the carbonate of potash recovered from the rinsing waters, which on an average would amount to 25 cents net per 100 pounds of raw wool treated, we would have 70 cents as the average minimum value of the by-products recovered from every 100 pounds of raw wool, or seventenths of a cent per pound of raw wool treated. Hence it seems safe to say that from \$2,000,000 to \$3,000,000 worth of woolfat and potash are run down the streams and wasted annually in the United States alone. If this woolfat, instead of being wasted, was recovered and refined and separated into its constituent parts, its value would increase at least five-fold, and its uses would be sure to multiply."

Machinery will be shipped into the Bonanza oil district of Wyoming this month. The Standard Oil company is beginning to display an interest in the new oil fields, which the owners claim are capable of producing a finer quality of the crude product than any yet discovered in the United States.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## SORRY FOR IT.

### Those Who Invested in Beaumont Oil Stocks Repenting.

Beaumont oil stocks appear to have dropped entirely out of sight and the voice of the Texas oil promoter is no longer heard in the land. The papers that a few months back devoted entire pages to exploiting the merits of these get-rich-quick concerns are now selling their advertising space to the betting speculators who have sure-thing tips on turf happenings. The small investor who bought oil stock and lost can now have an opportunity of winning back by putting up his ready cash with a syndicate that is just going to make a pile by betting on the horse races. The highway robber who takes the money of his victim at the point of a gun is an honest gentleman in comparison with some of the bare-faced scoundrels who have been conducting oil stock and horse racing investment companies.

The Oil City Derrick says that not one out of a hundred of the Texas oil companies, whose glittering prospects for making millions appeared so dazzling a year ago, will ever pay back even a small percentage on the amount invested. A Beaumont oil journal is able to cite only one of the companies that operated a fractional part of an acre that actually made any money and this one was favored equally by good fortune and careful management. This company paid a big price for its location and sold most of its oil at 15 cents a barrel. Its well was on the thirty-second part of an acre but it was credited with nearly a million barrels production before it came to a standstill. When it refused to respond to compressed air it was abandoned as pumping it was impossible owing to the lack of room on which to erect a pumping plant. Of course, with companies like the Guffey, the Higgins, the Heywood and others that had plenty of territory on which to operate and secured their land on the ground floor conditions were different and they are in a situation to continue their developments. It was an open secret from the start that no com-

pany paying at the rate of \$100,000 an acre for an oil well location, however rich the land, could ever get enough oil out of it, especially by making selling contracts at 3 cents a barrel, to pay the cost of the land. One of these companies recently sold its property and equipment on which it had expended \$25,000 to a Pennsylvania oil operator for \$550. There are many investments running all the way from \$25,000 to \$100,000 that have yet to return their first dollar. The Oil Investor's Journal in a very conservative and interesting article says:

Sometimes the failure to obtain revenue from properties has been the result of bad management, sometimes the extraordinary conditions that have arisen on Spindle Top from time to time have prevented the realization of profits, but at the bottom of the whole matter is the unheard of price which most of the companies paid for their property.

Such figures as those obtained for Spindle Top acreage—and fractional acreage—up to a few months ago, could only prevail where there was some inducement beyond the producing and selling of oil. This inducement was the demand for property for promotion purposes. The promoters felt the pulse of the investing public and with trained faculties for perceiving the heart's desire of this same public, discovered that what the people wanted was Beaumont oil stock.

Without previous experience they went into the field, bought their little piece of proven land, let a contract for a "guaranteed gusher" and went to work—selling stock.

The "oil business" on a thirty-second or a sixty-fourth of an acre, even in the Beaumont field with its marvelous production per well, was a speculative experiment, with the odds very heavily against the speculator. The promoter seldom took any chances, but allowed the purchasers of the stock to enjoy the excitement of taking all the risks.

Those who bought freely of the stocks of these thirty-second-of-an-acre companies are now realizing the difficulties of conducting a successful oil business on a piece of land about the size of the small front yard which goes with a six room dwelling in a crowded city. It was possible when the wells first quit gushing, to operate these wells on small lots by compressed air or steam heads. Compressed air is about played out at Beaumont and steam heads are giving way to walking beams, and now the little fellows find they haven't room on the property for a walking beam outfit!

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### Los Angeles Stocks.

The oil stock market continues to show a steady tendency upward with an ever-increasing volume of business. On the floor of the Los Angeles Stock Exchange during the past week many thousands of shares changed hands and the general run of prices was slightly in advance of former quotations. The last sale of Central in thousand share lots was at 96½ cents. This stock was selling at 50 to 52 cents a little over three months ago. An advance of nearly a hundred per cent in so short a time, and the fact that the stock has held firm at the advanced figure lends credence to the belief that the marked improvement in the oil situation in California will be permanently reflected on the local stock market. Columbia has recently gone up from 18½ to 20 cents. Continental is up several points; likewise Globe, Reed Crude and several others. Fullerton Oil has reacted somewhat and the same may be said of Union Oil, although the latter stands many points above the market of thirty days ago. The United Petroleum is in good demand at \$115.00 to \$116.00, with none in sight at less than \$118.00. Many others of the listed stocks have come in for their share of attention from buyers with the result that the total sales for the past week amounted to many thousands of shares.

The unlisted of the oils do not seem to participate appreciably in the improvement of the industry which they represent. Some few sales have been made of a few favorites, while prices generally have remained about stationary.

Mining stocks continue to share largely in the business of the Exchange. Butte Lode, Bisbee West, Hudson, Copper Glance and Modern Copper are appearing most actively in the trading.

There is no end to the premiums commanded by local Bank Stocks. American National, which was put out at par on the first of the year, now stands \$1.10 bid, and \$1.15 asked. The paper of nearly all of the banks is in active demand, although but few trades result owing to the limited offerings.

Few variations are to be noted among the miscellaneous securities, and business generally in this class of paper has been dull.

As a whole the market is better at the present time than it has been for many months.

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### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, March 10:

APOLLO.		
1,000 at	39.....	\$ 390 00
AZTEC.		
1,200 at	90.....	1,080 00
CARIBOU.		
1,000 at	85.....	850 00
100 at	87½.....	87 50
CENTRAL POINT CON.		
500 at	75.....	375 00
FOUR.		
150 at	66.....	99 00
1,000 at	67.....	670 00
HANFORD.		
1 at 115 00.....		115 00
HOME OIL.		
550 at 3 15.....		1,732 50
INDEPENDENCE.		
2,082 at 13.....		270 66
3,000 at 13 (S 90).....		390 00
1,000 at 14.....		140 00
1,000 at 14 (B 10).....		140 00
2,700 at 14 (B 30).....		378 00
JUNCTION.		
100 at 11.....		11 00
2,000 at 09.....		180 00
KERN.		
500 at 5 00.....		2,500 00

KERN RIVER OIL.			
10 at 14 25.....			142 50
LION.			
1,600 at 09.....			144 00
1,000 at 09 (B 30).....			90 00
MONARCH.			
100 at 33.....			33 00
500 at 35.....			175 00
MONTE CRISTO.			
400 at 1 37½ (S 90).....			550 00
1,250 at 1 37½.....			1,718 75
OCCIDENTAL OIL.			
2,000 at 19.....			380 00
2,600 at 20.....			520 00
500 at 21.....			105 00
500 at 22 (S 10).....			110 00
OIL CITY PETROLEUM.			
1,000 at 32.....			320 00
1,100 at 33.....			336 00
5,600 at 31.....			1,736 00
PEERLESS.			
21 at 15 50.....			325 50
REED CRUDE.			
3,750 at 32.....			900 00
SENATOR.			
100 at 70.....			70 00
SOVEREIGN.			
1,900 at 42.....			790 00
500 at 43.....			215 00
STERLING.			
145 at 3 50.....			507 50
825 at 3 55.....			2,928 75
350 at 3 60.....			1,260 00
100 at 3 60 (B 39).....			360 00
SUPERIOR.			
1,000 at 06.....			60 00
500 at 07.....			35 00
2,000 at 09.....			180 00
THIRTY-THREE.			
300 at 9 00.....			2,700 00
TWENTY-EIGHT.			
225 at 3 00.....			675 00
1,000 at 2 95.....			2,950 00
200 at 3 15.....			630 00
200 at 3 30 (B 30).....			660 00
400 at 3 25.....			1,300 00
50 at 3 25 (S 90).....			162 50
200 at 3 30.....			660 00
49,809 Shares	Amount	\$33,165.16	
CALIFORNIA WINE.			
20 at 103 25.....			2,065 00
CYPRESS LAWN.			
90 at 6 00.....			540 00
NORTH SHORE R. R. CO.			
75 at 12 00.....			900 00
OCEANIC STEAMSHIP.			
5 at 11 50.....			57 50
30 at 11 00.....			330 00
220 Shares	Amount	\$3,892.50	

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.30	
Apollo.....	.38	.40
Aztec.....	.87½	.92½
Bear Flag.....	.05	.10
California Standard.....		.18
Caribou.....	.82½	.95
Central Point Con.....	.75	.80
Chicago Crude.....	.15	.25
Clairmont.....	.18	.23
Fauna.....	.15	
Four.....	.66	.70
Hanford.....	112.00	117.00
Home.....	3.10	3.20
Imperial.....	18.00	19.50
Independence.....	.13	.14
Junction.....	.08	
Kern.....	4.75	5.50
Kern River.....		14.75
Lion.....	.08	.09
Monarch of Arizona.....	.32	.35
Monte Cristo.....	1.37½	142.50
Occidental of West Va.....	.22	.25
Oil City Petroleum.....	.31	.32
Peerless.....	15.50	
Pittsburg.....	.20	
Reed Crude.....	.31	.32
S. F. & McKittrick.....	2.50	
San Joaquin O. & D.....		7.25
Senator.....		.70
Sovereign.....	.41	.44
Sterling.....	3.50	3.55
Superior.....	.08	.10
Thirty-three.....	8.87½	9.25
Toltec.....	.15	.25
Twenty-eight.....	3.25	3.30
Union.....		70.00
United Petroleum.....	117.00	120.00
West Shore.....	3.00	
Wolverine.....		57.

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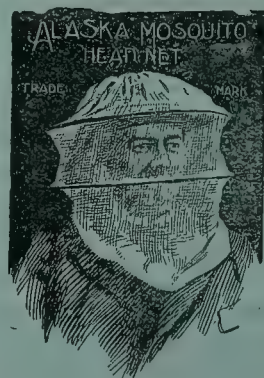
### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 2d, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (\$10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

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### Shortage of Oil.

The new engine of the Oakland Gas Light and Heat company's plant on the water front has finally put in place and has been accepted. The foundation for this was started last May, but various things have come to delay the establishment of the engine, which should have been in running order long before now. The capacity of this engine is 700 horsepower, making the total power for the plant almost 3,000.

Of late there has been a shortage of oil to operate the engines. On an average 6,500 gallons are consumed there in twenty-four hours. This amounts to about what one of the smaller cars contains.

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and last week the second monthly report of the Norwegian Consolidated Mining Company has been issued to stockholders. It is a most gratifying report, too, and shows conclusively that the values are being maintained.

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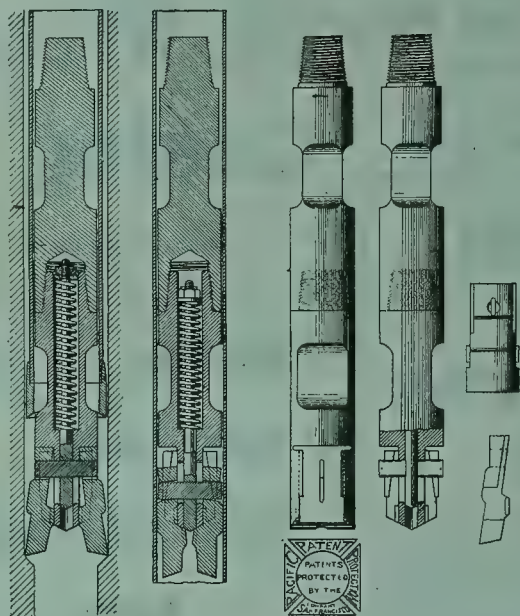
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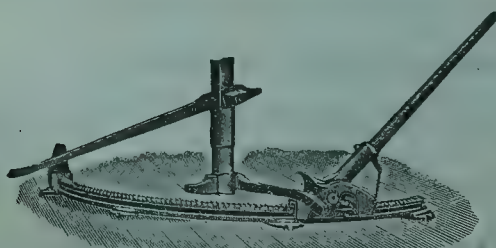


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# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 20.

SAN FRANCISCO, CAL., SATURDAY, MARCH 21, 1903.

Price 10 Cents.

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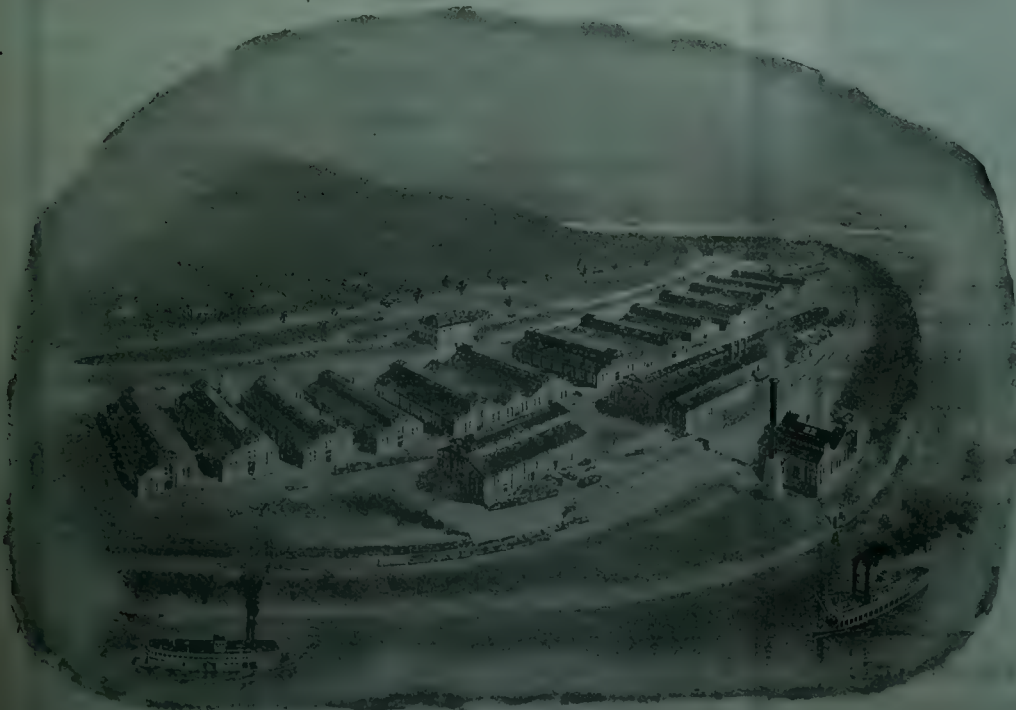
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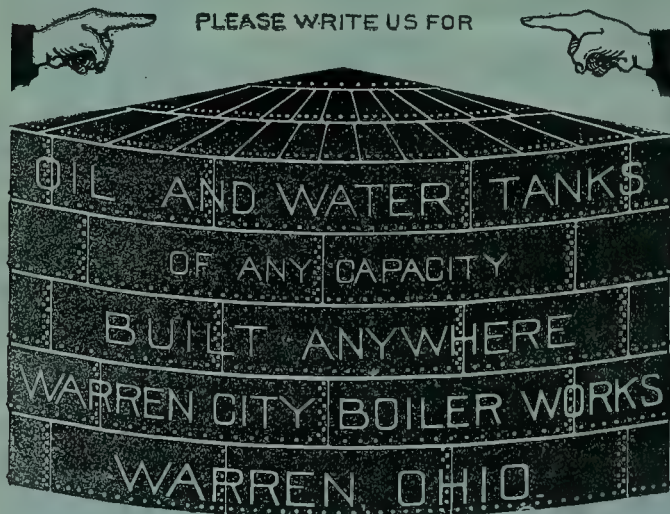
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# PACIFIC OIL REPORTER

VOL. 4. No. 20.

SAN FRANCISCO, CAL., SATURDAY, MARCH 21, 1903.

PRICE, TEN CENTS.

## A FALSE CHARGE.

### The Waters of the Bay Said to Be Polluted By Oil.

### The Charge Originated From Those Who Did Not Know the Actual Facts, and Who Would Attempt to Throttle a Great Industry.

There has been considerable complaint made of late to the Fish and Game Commissioners that large quantities of petroleum and coal tar are being run into the Bay of San Francisco; that yachts are fouled; ducks coated with tar; the striped bass fishing spoiled; oysters and clams contaminated, and the health of the community living on its shores is being jeopardized by such practices. Restraining suits have been threatened, and officers of one of the oil companies have been arrested at the instance of some yacht owners at Sausalito. Is it not fair to consider this whole subject in the light of common sense, and from a purely business standpoint, and not take for granted the sensational charges of a few people who may possibly have experienced some annoyance from causes which it is absolutely impossible to prevent?

The charge that petroleum and coal tar in large quantities are wilfully run into the waters of the bay carries its own refutation. No material having any value is wilfully allowed to go to waste. Both of these products are valuable, and, therefore, are not wasted. It is, however, impossible to transport oil in tank steamers and barges, load and unload cars at terminals, distribute fuel to railroads and vessels, without small quantities of the oil being spilled while making and breaking connections; and, in this manner, even with the greatest care, a few gallons of oil are unavoidably allowed to enter the bay.

It is a well-known fact that a very small quantity of oil will cover a vast surface of water, and to those ignorant of this fact, the smallest quantity floating over a wide expanse of water gives rise to the impression that "large quantities" are being allowed to go to waste.

The same thing is true of the claim of the discharge of refuse from the oil refineries. There is no refuse oil or petroleum product that is not valuable for fuel purposes, and none is allowed to go to waste, but a great oil refinery employing hundreds of men

cannot be operated with the nicety of a drawing-room. Tanks and pipes may at times leak; oil spilled at connections; and, with the greatest care, during the rainy season, flood waters may carry oil scums over the adjoining marshes to the discomfiture of the duck hunter and the clam digger. But the oil refineries and other great manufacturing establishments on the shores of San Francisco Bay are here to stay. Liquid fuel has solved the problem of manufacturing on the Pacific Coast, and its quickening influence is felt in every branch of business. In a short time oil as fuel will entirely supersede coal for the generation of steam on all vessels entering and leaving this port. It cannot be handled and distributed by means of silver spoons and damask napkins, and sensible people must readily realize this fact.

A few years ago the San Pablo peninsula furnished pasture to a few hundred cows, and the surrounding marshes comprised a duck preserve for a sportsman's club. To-day over 1,000 men are employed in this locality, and the sturdy and growing city of Richmond already has over 4,000 inhabitants. Of course this marvelous change constitutes a grievance to the sportsman's club, but who but it would wish the old conditions back?

Sentiment and pleasure must always give way to the utilities, when they interfere with progress and are a bar to development.

It is a well known legal conclusion that he who elects to dwell in a city must accept his environment. He cannot expect the pure air, the clear sky and the peaceful sounds attending country life. The factory will smoke and send forth its cloud of soot, the machinery will pulsate, the street cars rumble, the milk wagons rattle over the pavement, but shall the factories be closed, the cars and wagons cease running, because their noise jars on the nerves of some insomnia afflicted people?

Rivers and harbors were intended for the use of all men and for the greatest possible develop-

ment of commerce, not for the sole use of the few whom fortune has favored to lead the life of luxury. At such points only are the greatest of the world's cities built, and it is the unlimited facilities to handle the commerce of the world, that is giving San Francisco and adjoining cities, their commanding importance. Such uses cannot be had and the surrounding waters maintain the pristine purity of the pastoral days of California.

The claim that oil floating on the waters of the bay pollutes the same and is a menace to life, is reduced to an absurdity, when we consider that the sewage from a population of over 500,000 people around its shores, containing all the excreta and filth of hospitals and refuse of abattoirs, estimated at over 2,000 solid tons per day, flows into the waters of the bay; not like the thin film of oil scum which floats upon its surface and ebbs to the ocean with the tide, but dissolves in the water, sinks along the shores, and forms a mass of offensive filth and slime for miles along the tidal flats, thus constituting a real menace to both life and health and imparting a taint to both fish and mollusk. Far better that every pleasure craft on the bay should rot at its moorings, the hunter of the canvas back duck entirely forego his favorite sport, and the clam digger seek some new vocation, than have a great and growing industry, that has proved the greatest factor in the development of the State since the discovery of gold, and adding millions of dollars yearly to its wealth hampered and restricted for the sake of the favored few.

### Texas Field.

The best record yet made in the Chanute oil field of Kansas was finished the last week in February. The Commonwealth Oil company finished up its sixth oil well on its holdings, having been but eighty-two days in the business and having employed but one rig. They met with no accidents in drilling and though their holdings were in unproven territory, every hole they drilled yielded an oiler of from twenty-five to sixty barrels capacity.

### The Pipe-Line.

The pipe-line from Bakersfield to Point Richmond is all laid, and all that prevents the sending of the oil through the line is the completion of some of the pumping stations. In a few days these will be finished, and then for the oil.

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## IS ATTACHED.

The Mercantile Refining Company In a Bad Way.

The Mercantile Refining company, whose plant is at West Berkeley, and which was supposed to be doing a prosperous business, has been attached on three separate counts, and is now trying to extricate itself from a financial tangle.

The attachments were put on last Monday. The first by Mr. Bryant, the brother-in-law of T. P. Spiers, of San Jose, formerly the president of the company, but who stepped down and out a few weeks ago. This was for \$5,300.

The second was by the Union Oil company for \$1,513.

The third by Miss Cora L. Moxley, to protect the other creditors. This was for \$15,417.

E. J. Ensign, the president and manager, says the total indebtedness is \$42,000, and the tangible assets amount to at least \$60,000. He says the business of the company is all right, and that, as a matter of fact, it never was in as good condition. Thus far the March business is better than for that of any other corresponding two weeks, and includes the sale of 20,000 gallons of kerosene, and 39,000 gallons of mobilene, the new substitute for gasoline. Mr. Ensign says the attachments were brought at the instigation of the former president, Mr. Spiers, and that the company would have been all right, had not Mr. Spiers, as president, invested over \$15,000 of the company's funds in an oil burner which has not proved a successful investment for the company.

The business, he says, is all right, and the company can easily pay every dollar if granted time. On Wednesday a creditor's meeting was held, twenty out of twenty-two being present, and all but one of those present were in favor of granting time to the company. The company offers to pay \$4,000 cash, and \$1,500 a month on back debts. It is believed by those best acquainted that the business is all right, and that the new management can pull it through successfully.

### Oil Burner's Quick Trip.

The steamship Alameda, which was recently made an oil burner, made its fastest trip from San Francisco to Honolulu, arriving there March 6th, having covered the distance in five days and fifteen hours.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



## USES OF LIQUID FUEL.

### Its Consumption Growing Rapidly and Increasing in Variety.

#### The Best Methods of Burning the New Fuel, and Practical Tests that Show Its Superiority Over Coal.

During the last few years California has become one of the world's centers of crude oil industry. The recent great increase in the use of crude oil as a fuel in our commercial and marine service is therefore a matter of great importance to the present and future welfare of the State of California.

Crude petroleum, although many of its fields of usefulness have come to be appreciated only during the last few years, has been the basis of greater or less industry in California for a space extending over three decades. There are still actively engaged in the industry a few men who have been associated with the production of oil in California since the earliest time, and it is owing much to their efforts that the fuel value of crude oil has come to be recognized. Certainly in late years oil has come to be used for well nigh as many purposes as coal.

Before leaving entirely our consideration of the past it may be well to note that, according to the statistical tables, high water mark in coal consumption in California was reached in 1900, when there was a usage of 1,900,000 tons.

Keen competition in all mer-

2. Locomotives.
3. Steamships.
4. Smelting works.
5. Roasting of ores.

And many other minor uses, the above being the largest fields for fuel oil at the present time.

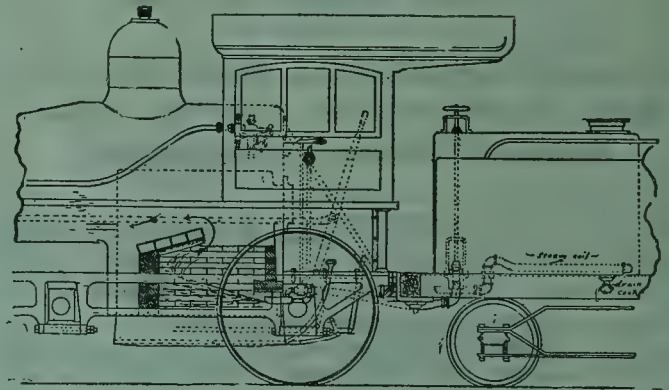
In power plant work for the generation of steam either for its direct usage for power work or generation and transmission of electric current, fuel oil has been found to possess many advantages over coal—doing away with the handling of the coal to the boilers and the necessity of finding a way for the disposal of the ashes. When oil is used the fuel is pumped from large storage tanks placed a sufficient distance from the point of use, and burned under the boiler, being atomized with either steam or air. Fewer firemen are required, as one man can take care of six to eight boilers. Coal passers are thus entirely done away with.

The method generally used at the present time for the burning of oil in stationary plants is to pump it from the storage tanks, then discharging it, under a pressure ranging from thirty to fifty pounds gauge, through heaters of sufficient heating surface to heat it up to about 180° Fahrenheit, according to the degree of oil used. From the heater it is piped to the fronts of the boiler, where it is

and unless blown out by steam will undoubtedly cause an explosion of sufficient force to wreck the brickwork of the boiler. This happened in many steam plants when oil was first used, causing wrecks, and in some places, shut-down of the plants. Provision must also be made in the oil suction and discharge mains for strainers, whereby all sand and other foreign substances will be prevented from entering into the

nearly as possible a fire similar to that given by coal.

The proper arrangement of the brickwork in the furnace is vastly more important than the burner. Many a scheme has been tried in the construction of a satisfactory furnace. Some are very fine but expensive to keep in repair, hence the value of the efficiency gained by the furnace is at once lost in keeping the same in repair. In addition to this is the loss oc-

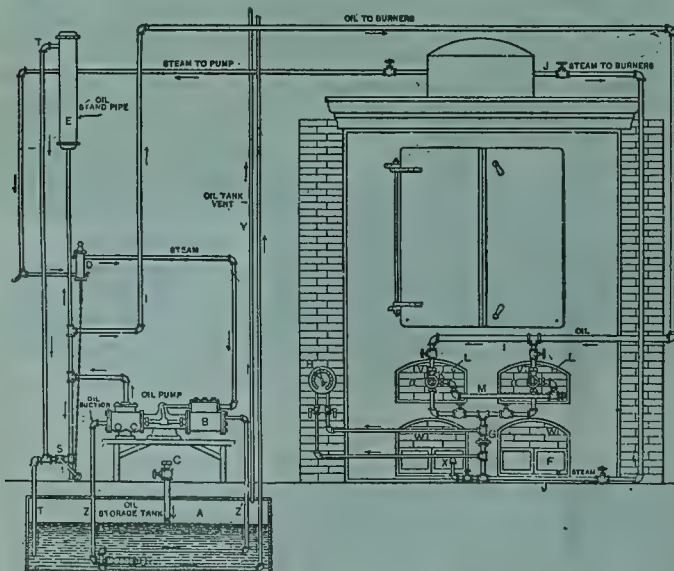


Locomotive Connections for Burning Oil

burners. The selection of a burner for spraying or vaporizing the oil is not a hard task, as most any mechanically constructed burner will do the work, providing that in its selection due attention is given to the style of boiler used, each requiring either a flat fan or cone-shaped flame. A sufficient number of burners should be used so as to distribute the flame equally and give as

casioned by the enforced shut-down of the boiler during repairs. A simple furnace should be used, consistent with results to be obtained.

The experiments now being made in oil burning in stationary work make it reasonably sure that changes bringing greatly increased efficiency will take place in the near future in the matter of furnace construction. Furnaces



Connections for Use of Fuel Oil in Power Plant

cantile pursuits has driven the owners of all businesses to seek for methods and devices whereby they may compete to better advantage. The advent of fuel oil as a substitute for coal has brought many a concern using coal to study the advantages of its application.

In considering the situation we find that oil is now used, mainly in:

1. Power stations,

connected to the burner. Care should be exercised in heating the oil, as some oils, if heated to a high degree, give off a vapor which will be forced through the pipes to the burners, when in most every case the burner will become extinguished, necessitating the relighting of the same by the man in charge. If this is not done immediately the gas issuing from the burner will rise in the combustion chamber of the boiler,

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SAN FRANCISCO, CAL.**



may next study the use made of oil in smelting work.

The development of the oil industry has proved very beneficial to California, which, possessing no coal fields of her own, has always been dependent upon Australia, Wyoming, Vancouver and Japan for her supply of fuel employed in manufacturing and smelting. In its application to smelting the use of crude oil is a comparatively new departure. At the Selby works, Mr. Alfred Von der Ropp has been very successful in this direction. He finds that a matting furnace, which ordinarily requires one ton of coal for every  $3\frac{1}{2}$  tons of ore, will smelt a ton of ore per barrel of oil, so that  $3\frac{1}{2}$  barrels of oil are the smelting equivalent of one ton of coal, in a locality where coal costs \$6.00 per ton and fuel oil 80 cents a barrel. Under the prevailing conditions the use of oil represents an economy of 50 per cent.

Beside this economy of first cost, the oil fuel has also been found advantageous because the oxidizing atmosphere of a roasting furnace can be maintained without those interruptions which take place when fresh coal is added, interruptions which are accompanied by the introduction of reducing gases which temporarily cause the process of oxidation to remain at a standstill. Moreover, it is possible with oil, by regulating the air inlet of the furnace, to control the smelting atmosphere so as to obtain oxidizing or reducing conditions, as the metallurgist may desire. The ability to increase the temperature of a metallurgical operation with not-

able ease is another good feature. It is an interesting example of adaptation to conditions, and the readiness with which it has been used is typical of that progressiveness which characterizes the energetic people of the West.

Besides these many fields in which crude oil is used as fuel, there are many somewhat less important uses to which it is put, such as forging work in the large blacksmith shops, where it is used to heat the furnaces in place of coke and coal. These furnaces give a far more even heat with oil than with coal.

Many practical points come up in connection with the use of oil, which should be learned by all engineers, especially in buying the oil, as a person has to look out for the presence of water.

A very simple test for the determination of the grit and water in crude oil is the following: Place in a graduated tube, or cubic centimeter of the oil to be tested; add to this .01 cubic centimeter of gasoline; shake this mixture well, and let it remain in a fairly warm place for twenty-four hours. By that time the water and sand, being heavier than the gasoline and crude oil, will have settled to the bottom. By counting the cubic centimeters that represent the water and grit, which are easy to distinguish from the oil, you have the percentage without any figuring.

This will help to keep the buyer on the right side of the ledger.

Finally, we see that oil as fuel for power and heating purposes has entered our markets permanently, or at least for so long a

time as the supply is sufficient to keep down prices to less than a dollar a barrel.—A. J. Turner, '03, in California Journal of Technology, published at the University of California.

### AT LOS ANGELES.

#### Oil Scarce and in Demand at Higher Prices.

The Los Angeles Herald says prediction regarding the possible advance in oil made several weeks ago has more than been realized. The average of quotations for local fuel oil is 70 cents a barrel in the field and under 13 gravity rates at 55 at the wells. In the Los Angeles field the supply is so limited that imports from Fullerton and Whittier are required to fill orders. Long-time contracts are being made from 75 to 80 cents a barrel. The output of the Los Angeles field is about 60,000 barrels a month and if a gallon of surplus can be found oil men are ready to take all offers. Oil producers assert that nothing but supply and demand fixes the price of local production, all attempts to combine or to sell through a few agencies having failed to place oil-producing on much of a paying basis for many months.

A few months ago it was freely predicted that should oil reach 60 cents or more a barrel Whittier producers would enter the field and capture the more desirable consumers by reason of higher

gravity of oil. This has not proved to be the case. The few Whittier producers who are not tied up with the Union Oil company are demanding 60 cents a barrel in Whittier for their product, and oil from that market could not be delivered to Los Angeles consumers having railroad switches for less than 75 cents a barrel.

#### Oiled Roads in Sonoma.

A press dispatch from Santa Rosa says that the board of supervisors have authorized the first use of oil on roads in that county by a contract for sprinkling twelve miles in Sonoma valley with crude petroleum. A San Francisco firm secured the contract, the price being \$1.47 per barrel, which is to cover all costs of labor and supervision. If the result is satisfactory the use of oil will be extended wherever practicable.

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#### In Ninety Days

and tell us if our prophecy, that the stock of the Norwegian Consolidated (Gold) Mining Company would be a bargain at \$1, is not true. To-day you can buy it at one-half that price, but we would not suggest delay.

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Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

### Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

## Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

Treasury Stock, - - \$350,000

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Proven oil lands in Napa and Coalinga for sale cheap.

AGENTS WANTED in All Large Cities for the Sale of Our All Refined Asphaltum



# FACTS ABOUT OUR ASPHALT.

**It is Slowly But Surely Crowding Bituminous Rock From the Market.**

**The Largest Eastern Cities Have Used it for Paving Purposes, and Its Use Has Demonstrated Its Excellence and Durability.**

There are at present four classes of pavement in use in California.—stone blocks, modern asphaltum pavements, bituminous rock pavements and wooden block pavements. Outside of the city of San Francisco there is very little, if any, stone block pavement being laid; for that reason it will not be necessary to discuss that class of pavement at this time. The principal pavements laid on the coast are the modern asphaltum pavements, bituminous rock pavements and wooden block pavements.

Bituminous rock pavements have been laid pretty generally in the larger cities of California. This material comes from deposits in Santa Cruz and San Luis Obispo counties, and it would be unfair to say that it is useless for street paving purposes. Some very good roadways have been made, and not unlike other classes of paving material, some very poor roadways have been constructed with it. In the early history of bituminous rock, when the material used for street pavements was extracted from the outer ledges of the deposit, contractors were enabled to obtain a very good and even grade. It was fine in texture and could be relied upon for producing a fairly good pavement—much better than the material proved to be after the deposits were penetrated, where the ledges and deposits were in an uncertain condition and it was impossible for the contractors to tell what class of material they were procuring for their street surfaces. The greatest trouble is this uncertainty. A contractor cannot possibly tell when he lays it down what the resulting pavement will be. The asphaltum which is in the sand is very uneven in quality, and the sands of which the material is composed are also unevenly distributed and the pavement itself not properly filled. For these reasons a pavement laid with bituminous rock at its best is uncertain, and while it has been considered fairly satisfactory in San Francisco and adjacent cities, for some years, this is by reason of the fact that there has been no opportunity for comparing bituminous rock pavements with first class pavements. The only comparison which is made by the

public in general, and by the city officials to a great extent, is between bituminous rock and stone blocks, the preference being given to bituminous rock by reason of its smooth and noiseless qualities. It is not necessary to discuss bituminous rock to its fullest extent for the reason that any reader of this article has the object lesson immediately before him. There have been a good many miles of this work laid in Northern California, and some of it is very satisfactory, but much of it is unsatisfactory. There are very few blocks of pavement laid with this material that are not, for some reason, out of proper condition. The streets are rolling badly, going into waves and breaking up in many instances. There is hardly a continuous pavement of two blocks of bituminous rock in the whole State of California that would be considered, from the standard of an Eastern modern pavement, to be in good condition. Another reason why bituminous rock pavements are not entirely satisfactory is the tendency to soften from heat. There are but very few days in the year when the bituminous pavements of San Francisco, Oakland or San Jose do not become spongy and very soft and disagreeable to drive over, and especially for heavy traffic. The pavement marks up badly, and every heavy load that goes over it on a warm day leaves a decided impression which is constantly working an injury to the pavement. As above stated, this object lesson is continually before the eyes of the citizens, and should render its own verdict.

In no part of the United States are there such large and valuable deposits of asphaltum as in the State of California. The quality of this asphaltum, after years of practical use and testing under all conditions, has been pronounced to be equal to or better than any other grade of asphaltum used in the market. California has furnished, for many years, thousands of tons of refined asphaltum which has been shipped East and used in laying asphaltum pavements throughout many of the larger cities of the United States. In Southern California, especially in Los Angeles, where bituminous rock was laid for many years, that material has not been admitted in

the pavements for the past five years. All the later improvements have been made with the modern asphaltum pavements. There are at present in the city of Los Angeles several miles of asphaltum pavement where the bituminous rock pavement had failed and was taken up and replaced with asphaltum. Every asphaltum pavement in Los Angeles is in perfect condition and has never cost one cent for repairs, notwithstanding it has been laid for five years and used under the heaviest traffic of that city. Other cities in Southern California have adopted asphaltum pavements, and in fact do not admit of any other class of pavement going down. Santa Ana, Redlands, Pasadena and Pomona have each adopted asphaltum pavements and have laid quite an extent of that work. Aside from what has been used by the cities in Southern California, the refined asphaltum of this State has all been sent East and has gone into the construction of pavements in the larger Eastern cities. Years ago, when asphaltum pavements were comparatively new, when the material was not thoroughly understood, and was manipulated by unscrupulous contractors, some failures were recorded against the pavement. The methods of laying asphaltum pavements have improved within the last few years as much as any one class of commercial business. All the operations pertaining to the laying of asphaltum pavements are now conducted with as much interest and care as any other class of business. Asphaltum itself is a very sensitive material and its virtues easily destroyed. The same may be said of Portland cement. You may take the very best brands of Portland cement and if improperly mixed or handled by parties who do not understand the business, its virtues are destroyed. The present method of constructing an asphaltum pavement is brought to a degree of perfection that has overcome all liabilities of making mistakes and poor pavements. In bituminous rock pavements sand is placed in the material by nature, in an uneven, imperfect manner. It will be remembered that the surface of a sheet pavement comprises at least 75 per cent sand. If this sand is not properly graded and properly selected, the results are very unsatisfactory, not only in bituminous rock pavements but in the asphaltum pavements. With the improper grading of the sand the pavements will roll out of shape, form into waves and will break up easily. But where the sand is selected with care and graded so as to produce a uniform pavement, that trouble is overcome and you are enabled to roll the pavement to a compact finish, and when

once set it remains in its perfect shape, and there is no trouble about its rolling and going in waves. This defect in bituminous rock pavements cannot be overcome, and the street once constructed under modern methods always retains its smooth level surface and is much more desirable for use.

There is no class of pavement which has grown so rapidly in the favorable estimation of the people in the different cities, as asphaltum. The area of surface covered this year with an asphaltum pavement will exceed any other class of pavement by 300 per cent. There is laid and under contract for this year's work in the United States something like ONE THOUSAND MILES OF ROADWAY to be paved with asphaltum, aggregating a cost of more than ONE HUNDRED MILLION DOLLARS. These conditions exist after many years of testing the pavement under all conditions which can be found throughout the United States. California refined asphaltum is taking its place among the other classes of material and a demand is found for every ton that can be made and shipped East. This asphalt may be produced from the natural asphaltals on this coast in order to comply with the specifications in use throughout the Eastern cities, and when carefully prepared there is a steady and substantial market for the material. Most California asphalt is now refined from the heavy asphaltum oil, found so abundantly from Los Angeles county to the Coalinga field in Fresno county, and thus refined and properly graded is the best and cheapest asphaltum ever placed on the market. New York city has, up the present time, laid pavements of California asphalt aggregating nearly THREE MILLION SQUARE FEET. Most of this pavement is laid in what is known as the "down town" districts, where the traffic is very heavy and continuous. A recent investigation of this pavement shows that it is in perfect condition, and shows no signs of breaking up or rolling out of shape. In Brooklyn, New York, California asphaltum is laid on ONE MILLION EIGHT HUNDRED THOUSAND SQUARE FEET OF ROADWAY. Many of these pavements have been down now five years and are giving perfect satisfaction. In the city of Buffalo, New York, California asphalt covers nearly SEVEN HUNDRED THOUSAND SQUARE FEET; in Pittsburgh, Pa., more than SEVEN HUNDRED THOUSAND SQUARE FEET. There are many other cities of equal size and importance in the United States using this material, and it is no longer an experiment, but has proven to be one of the most successful street paving materials that has ever been offered.



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco  
Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

SATURDAY.....MARCH 21, 1903

The coming year will be one of unpre-  
**Large Contracts** dented activity  
**Ahead for Asphalt-** activity  
**tum Pavement** for con-  
tracts for  
asphaltum pavements. The de-  
mand for pavement made of Cal-  
ifornia asphalt is increasing with  
marvellous rapidity.

This fact is recognized by the bituminous rock pavement firms which are making a last stand in their fight against the inevitable.

Bituminous rock pavement must go. It is not a fit material for paving purposes, and its use has demonstrated its inferiority.

In the East, as well as in California, the asphalt paving contractors will soon have all they can do in the way of handling contracts.

California in the next six months will probably consume 20,000 tons of asphalt.

In the cities about the bay some big contracts are in sight.

Oakland is justly up in arms over the condition of its streets. Telegraph avenue is the main artery between Oakland and Berkeley. This street was paved with bituminous rock for over two miles and the pavement is now in such a condition as to be almost impassible. The property-owners paid for this work once, and it now devolves upon the city to replace it, and pave it as it should have been paved in the first place with asphaltum pavement. On this street alone, outside of that portion of the street to be paved by the railroad there are over 500,000 square feet.

Besides Telegraph avenue in Oakland are such important streets as San Pablo avenue, Franklin and Fourteenth streets, all of which must be paved at once, and for the paving of which Oakland is now discussing the ad-

visability of voting a bond issue of \$500,000. In all over 2,000,000 square feet of the above-mentioned streets will be paved this year. These streets should be and undoubtedly will be paved with asphalt pavement.

Alameda county has certainly had all it wants of bituminous rock pavement.

In San Francisco during the coming year there is street paving to be done to the amount of over \$1,000,000. Of course the bituminous rock men are straining every nerve in order to secure this work, which if they do secure it, will be the last bituminous pavement that will be laid in San Francisco.

There is every reason to believe they will not be able to secure this last crumb.

We have an intelligent and honest Board of Supervisors, and a capable and trustworthy city engineer.

The Board of Public Works undoubtedly has the best interests of the city at heart, and will see that the best pavement possible can be laid. Certainly they have had enough of bituminous rock, and know that it has not and will not stand the test. If the city orders the pavement to be laid of asphalt, the city engineer has a well-equipped laboratory, and will see that the asphalt pavement is laid according to specifications as to material, process, etc.

There is little doubt but that the bituminous rock men are now making their last fight. There is no fear, however, if the asphalt men stand together and fight together, but that asphalt will win out as against bituminous rock, and that the bay cities will see no more bituminous rock laid on its streets.

## ACTIVITY PREVAILS.

From All the Oil Fields Come Encouraging Reports.

Mr. Fred H. Bowler, one of the most capable oil men in the State, has just returned from a visit through the different fields, and his report as to the conditions prevailing in the different districts is very encouraging.

Mr. Bowler, now the representative of a house dealing in oil well supplies, was formerly connected with the Standard Oil company, and for four years worked in the Baku field for that company, subsequently going to Singapore, Sumatra, Jamaica and Australia, and on returning to this country was in the Ohio fields.

He knows an oil derrick when he sees one, and doesn't have to be told the names of the tools or how to use them. He also recognizes oil sand when he sees it, and can tell within a thousand barrels or so how much oil a well is pumping a day.

He went through the new Santa Barbara fields and found a mighty nice well at Lompoc, where the Union Oil company made a strike lately. He says the whole country is excited, and justly so, over the oil prospects, and that a lot of people are getting ready to begin new development work. Mr. Bowler says the country about Lompoc is going to develop into a great oil field.

At Fullerton he found about 40 wells, with prospects of more good wells very shortly. At the Victor Hall lease, the Santa Fe and the Olinda Crude, he found everything active. Mr. Charles Gilbert, manager of the Olinda, is an up-to-date oil man, and is doing as much as anyone to develop this field. His company proposes to expend over \$100,000 this year. Mr. Catlin and Mr. Parrish, at the Santa Fe lease, will expend about as much more, and have unbounded faith in the territory. J. Victor Hall has had some hard luck, but has succeeded in developing two big wells as good as any wells in the State. Mr. Bowler visited these wells in company with Mr. Wilbur Wallace of the National Supply company. They saw the oil shoot up and out from a three-inch pipe to a distance of at least forty feet without striking. That looks like a pretty good well. Of course the flow is intermittent.

At Whittier Mr. Lacy, of the Central Oil company, is doing a great deal of development work. The company is pumping about six wells, and has made good contracts for the sale of the oil. It has refused to enter upon long-term contracts, as Mr. Lacy expects oil will reach a high figure in the next two or three years.

In the Sunset field Mr. Bowler found things very lively. There never was such activity in this field. The new company that has taken over the Jewett & Blodgett properties is doing wonders, and will soon work a marvellous change in the condition of affairs at Sunset. The refinery will soon be handling 1,500 barrels a day, and trains of tank cars will go out daily. The pipe-line will soon be in operation.

The present year will be by far the best in the oil history of the State. There will be but little wild-catting, most of the work being done inside proven lines. The demand for oil is increasing, and the uses to which oil is being put are multiplying. Mr. Bowler believes the consumption of oil in California for 1903 will exceed rather than be less than 20,000,000 barrels. To provide for this rapid increase of consumption means the opening up of new districts and the drilling of more wells.

The outlook for the California oil industry never looked brighter.

Subscribe for the PACIFIC OIL REPORTER.

## OIL FUEL UNION.

The Society Spends a Pleasant and Profitable Evening.

The Oil Fuel Union, a society in process of formation for the purpose of discussing and aiding the use of oil as fuel, had an enjoyable as well as profitable evening last Friday at the Academy of Science hall, San Francisco.

Dr. C. T. Deane, Secretary of the California Petroleum Miners' Association, presided and gave an excellent address on the oil fields of the State, and the usual method of extracting the crude oil therefrom.

Following him Mr. Paul W. Prutzman gave a most excellent address on "Fuel Oil," which was illustrated by a number of drawings showing the different methods of burning oil, and also showing the chemical and other characteristics of different oils.

This address will be reproduced in full with the illustrations in the PACIFIC OIL REPORTER.

Prof. Prutzman discussed the subjects advanced in a most thorough and scientific manner, and his explanations and demonstrations were clear and easily understood even by those who until then had no knowledge of the subject.

The lecture was well attended, and will be followed by others.

## NEW OIL TANKER.

Steamer Whittier, of the Union Oil Company Launched.

A steel steamer named the Whittier, built by the Union Iron Works for the Union Oil company, was launched last Saturday, the honor of christening the vessel falling to Mrs. John Baker, Jr., wife of the manager of the oil company. The Whittier has a length of 250 feet, beam of 41½ feet, and depth of 16 feet, and has a capacity for carrying 10,000 barrels of oil in bulk. She will be used in the coast trade and in running to Hawaii.

The steamer Argyll, also to be used in the service of the Union Oil company, and now undergoing alterations at the Union Iron Works, will have a capacity for carrying 30,000 barrels of oil in her tanks.

A new steamer, with a capacity of 55,000 barrels, is reported to be under construction on the Atlantic coast for the Pacific trade.

## Louisiana Field.

The Jennings-Heywood Oil syndicate has sold nine acres of its 2,000 acres of oil lands in Louisiana, and declared \$40,000 dividend. Heywood Bros. have bought the undivided one-half interest of the Southern and Jennings pipe-line, which gives them control of it, as they control the Jennings Oil company, which owns the other half.



# ANNUAL REPORT.

## The Associated Makes a Statement of Its Business During 1902.

### After Making Deductions From the Sum Received On Account of Tankage and Transportation Expenses, the Oil Will Net 22 1-2 Cents Per Barrel.

At the first annual meeting of the Associated Oil Company, recently held, the following officers were elected. J. A. Chanslor, president; William G. Kerckhoff, first vice-president; W. A. Jacobs, second vice-president; W. S. Porter, general manager; O. Scribner, secretary.

The following report was submitted to the stockholders at their meeting

The Associated Oil company was incorporated on October 7, 1901, for the purpose of acquiring the properties of other producing companies. Since that time it has acquired by purchase and owns outright the following properties: Reed Crude Oil company, Green-Whitaker Oil company, Canfield Oil company, Kern Oil company, San Joaquin Oil and Development company, Aztec Oil company, Toltec Oil company, Alva Oil company, Kansas City Oil company, Moneta Oil company, Omra Oil company, Bear Flag Oil company, Section Five Oil company, Hecla Oil company, Hanford-Fresno-Kern-River Oil company, Sycamore Oil company, Vernon Oil company, Wolverine Oil company, Central Point Construction Oil company, Senator Oil company, Bolena Oil company, Queen Esther Oil company, Cortez Oil company, Red Bank Oil company, Comet Oil company, Clarence Oil company, Richmond Oil company, Chicago Crude Oil company, Missouri Oil company, Blinn Oil company, and Mt. Diablo Oil Mining and Development company; also the properties of John A. Bunting and Warren Gillelen—all situated in the Kern River district; and the following properties in the McKittrick district: Shamrock Oil company, California Standard and Giant companies, D. B. Parker et. al., Tulare Oil and Mining company, Standard Asphalt lease and the Del Monte lease and more than two-thirds of the capital stock of the Union Land and Oil company of Georgia, also situate in the McKittrick district.

It has also acquired the Bunting Machine shop, in the Kern River district, tankage of Chanslor & Canfield along the Santa Fe railroad and the capital stock of the Bakersfield Iron Works at Bakersfield.

It has paid for these properties in stock and bonds of the Associated Oil company, issuing for that purpose 18,422,117 shares of its capital stock at par, and \$1,526,170 of its first mortgage bonds.

The company has during the past year produced and sold 2,648,456 barrels of oil, for which it has received the gross sum of \$1,572,425.64.

It has paid to the railway companies, and for other transportation charges, \$754,985.26, leaving a gross income to the company, after deducting all transportation charges, \$817,440.35.

It has rebated to the companies owning contracts for the sale of oil at the time they transferred their property to the Associated Oil company, \$220,643.54.

It has expended during the past year for the purchase of real and personal property, having purchased a large portion of the McKittrick field for cash, building tanks, the purchase of cars, the construction of pipe-lines, the establishment of tankage and distributing plants at various points, and the con-

struction of barges for movement of oil about San Francisco bay, \$751,164.45.

It has during the past year doubled its production and the sale of oil, increasing it from 155,000 barrels a month on January 1, 1902, to over 300,000 barrels a month on January 1, 1903, and at the same time has reduced its operating expenses and general expenses, to the extent of \$72,000 per annum.

Notwithstanding the low price of oil it has made a net earning largely in excess of the expectations of its directors.

These results show what can be accomplished by an association of men who have a single object in view, which is the betterment of the conditions surrounding the business in which they are interested, and the fact that more than sixty per cent of the entire issued stock of the Associated Oil company is owned by its present directorate is sufficient guarantee that its policy in the future will be in the interests of all stockholders.

In relation to the above a few words of explanation will be of interest to oil men.

It will be observed that in the above statement, furnished by the company, the total receipts from the sale of 2,648,456 barrels of oil were \$1,572,425.64.

From this should be subtracted \$754,985.26, the amount paid for railway, barge and other transportation, deliveries by tank wagons, etc. Twenty-five per cent of the production is sold f. o. b. on the field.

There should also be subtracted the sum of \$220,643.54, the amount of the rebates paid to companies purchased by the Associated for the sale of oil at the time they transferred their properties.

These amounts deducted from the original leave a total of \$596,797.01, or an equivalent of 22½ cents per barrel received from the sale of oil.

From this again should be deducted the cost of production, pumping, tankage, etc., which may be classed as operating expenses, and also the expenses of salaries, rents, etc., which may be classed as administration expenses.

Manager Porter says that against this should not be charged the amounts paid for the purchase of real and personal property, or the purchase of cars, building tanks, pipe-lines, barges, etc. This money has been paid out, and amounts to \$751,164.45, but the results of these expenditures stand as permanent assets.

During the year past the Associated has more than doubled its production and sale of oil per month, and has greatly lessened

the expenses of the company, which at first were very large, owing to the very necessities of inaugurating such an immense business. The salary list is now less than \$40,000 per year, and this is but an illustration of the reductions that have taken place in all departments. Manager Porter says the company has now secured practically all the properties it needs, and is in the position it has striven to obtain since the inception of the company. The initial outlay has been very great, but has been met, and will not have to be met again. The company is now prepared to do a much more extensive and more profitable business than before.

While much oil has been sold at a low figure, owing to over-production, and the fact that inducements had to be offered in order to secure consumers who were more or less afraid to change from coal to oil, that period has passed and no more cheap oil will be sold.

Mr. Porter expects his company to be able to make a much better showing in its annual report for 1903.

An immense body of oil bearing limestone shale has been discovered on Slate creek, eleven miles north of Kemmerer, Wyoming. The outcrop is forty feet thick, the deepest known to exist throughout this section. An analysis of the rock shows 18 per cent heavy paraffine oil.

### Eight-Dollar Ore Means Good Dividends

to the stockholders in the Norwegian Consolidated (Gold) Mining Company. Our advices of Feb. 28 from the mine show that ore is being extracted which runs \$1300 per ton. A few minutes' figuring should satisfy you whether or not the shares are a good investment at 50 cents.

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## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### COLUSA.

W. E. Youle arrived here Sunday to look after his oil interests. He is willing to take chances of sinking his money in an attempt to find oil, and the business men here mostly think he understands his business. We wish him the most unqualified success. — Arbuckle Independent.

#### FRESNO.

It is reported that a wealthy San Francisco corporation is about to lease a large portion of the holdings of Mount Hamilton Land and Oil company, near Alameda, with the option of purchase. The corporation is to complete the well of the Mt. Hamilton, and, if this is a success, will put down other wells. If this deal goes through, as seems likely, it will mean great things for the section of the Coalinga field near Alameda.

The Visalia Times says that John Cutler returned last Wednesday evening from the West Side, near Coalinga, where he has been for six weeks superintending the sinking of a well for El Zumo Puro company. Oil was found a few days ago at a depth of about 950 feet and is being pumped at the rate of about 200 barrels a day. The oil is being stored in tanks and pumped into the McNear pipe line to the railroad, a distance of about seven miles. Work was begun on this well of the company on January 22nd.

There are lively times at present in the Coalinga field, and many purchases of land and new leases are reported as either having been consummated or under way. The Standard has one big storage tank now completed, and two more are under way, and will be completed by the time the pipe-line is laid from the field to the Bakersfield pipe-line at Lethent. This pipe-line will be completed and ready for business within ninety days. Meanwhile the Standard is shipping oil from the field by tank cars. It will soon be storing oil in the tanks, and, when the pipe-line is completed, will pipe 30,000 barrels weekly from the Coalinga field to the Point Richmond refinery.

#### KERN

The Union Pacific Oil company will begin at once to drill on the Carisa plains in entirely new oil territory.

The Wilson Oil company has lost its suit against the Kern River Mutual and Fomoso Oil companies in the endeavor to oust them from their holdings in the Kern River field.

The stockholders of the Superior Oil company will meet on Monday, March 30th, elect a new board of directors and transact such other business as may properly come before the meeting.

The Southern Pacific company has about completed a new loading rack at Olig, and expect to be able to load twenty-five cars from one rack. The two new tanks recently finished are full of oil and the third is filling up rapidly.

The claim is made by the California Combined Oil company that they have struck oil on 7-28-28 at a depth of 1020 feet. This company is the one formed from the Lincoln and one or two other companies presided over by Edson, Abbott and others.

McKittrick company's well No. 3, in which the casing collapsed, has been cleared out and now promises to be a good producer. The water which was troublesome in the McKittrick wells has been shut off permanently and the wells are pumping steadily.

The property of the Kern Crude Oil company, an insolvent debtor, has been sold at auction by R. Shaw, assignee. The purchaser was Attorney E. B. Coil and the price was \$600. The property was the east half of the southwest quarter of section 23, 32-23.

The Midway Oil company has leased the following territory to the Oriental Oil company, for a period of ten years, at one-fifth royalty: Southwest quarter of southeast quarter of section 5, 32-23; southeast quarter of southwest quarter of section 5, 32-23; northwest quarter of southwest quarter of 5, 32-23; southeast quarter of southwest quarter of 5, 32-23; northwest quarter of northwest quarter of 8, 23-32.

E. S. Burton was in Delano Friday looking for teams and men to work on the oil reservoirs. He wanted 140 head of horses and 35 men, and succeeded in getting 72 horses and a number of men. He was offering \$3 a day with board and horse feed for a man and four horses. With these reservoirs to scrape, the Midland Pacific grading just beginning and the ordinary work of the country to be done there certainly need be no idle men in Kern county this spring.—Record.

A very important transaction in oil lands took place here last week when W. B. McIntosh negotiated a deal with Eastern parties by which forty acres of the best oil lands in the Sunset district on section 31, 32-24, adjoining the Pitts-

burg, Stratton, Sunset Queen, Raisin City and other companies changed hands. The price paid for the land was \$83,000. The purchasers intend to begin extensive development work at once and to sink new wells on the property. The work is to be in charge of Mr. McIntosh as local manager.

W. F. Chandler of Selma is the largest holder of Pittsburg oil stock. Numerous transfers of this stock were made during the past month or two, and it was rumored that the purchases were made in his interest, but not until last week was the stock transferred on the books of the corporation. According to the records of the company Mr. Chandler is now the owner of 160,070 shares of Pittsburg stock. The company is capitalized for \$300,000, divided into shares of the par value of \$1 each. Only 240,000 shares of the stock have been issued, and Mr. Chandler holds a fraction more than a two-thirds interest.

The clouds of smoke that enveloped the northern portion of the Kern River field recently were caused by a fire at the Kern Canyon Oil company's camp on section 25, 28-27. The company recently made a contract with the Standard for the purchase of its product and as a preparatory move to starting up the pumps again it was decided to burn out an old sump hole. The blaze made unusual progress and instead of confining itself to the fuel in the sump hole spread to a wooden tank containing about 800 barrels of oil. The tank and its contents were destroyed, the damage amounting to a few hundred dollars.

In the Superior Court A. B. Canfield has filed a suit against Mrs. Clara Shortridge Foltz, the Alta Oil company, Wilbur A.

Hendry, Charles Weir and John Baldwin to foreclose a lien on an oil well for \$1410, alleged to be due for labor and material furnished for the drilling of the well. The contract was made by Mrs. Foltz and by her assigned to the Alta Oil company. The other parties to the suit are sued as claiming some interest in the property in question. The contract price was \$2460 and it is alleged that only \$1050 has been paid. Mr. Canfield has also filed another suit against the Alta Oil company to obtain judgment for \$743, alleged to be due him for material and labor furnished.

The Dey Rel Oil company, on section 5, 29-28, is making great progress under its present management and has all of its five wells pumping oil. The Californian says it is preparing to sink a sixth well at once. The company is about to begin putting in its pipe line from the wells to the railroad. This has been delayed on account of difficulty about the right of way, which now, however, is practically adjusted and the necessary rights nearly all secured. The pipe is all on the ground as well as the loading rack, which is to be put up at once. The pipe line will be a mile in length, crossing all of section 8. The five wells now working are producing about 200 barrels a day. The property is in firstclass condition in every way and like nearly all in the State is prospering. The company is fitting up a set of tanks for storage of its products.

The strike recently made by the Arcata Oil company on section 31, 32-24 has given encouragement to further development in that portion of the west side country, and a rig is now installed on section 30, same township, close to the point where the Oriental



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Do not forget that the oil produced in Halfmoon Bay sells at \$1.75 per barrel at the well. The companies operating in this field will be the biggest dividend payers of the Coast.

Write for our printed matter.



drilled a few years ago, but which enterprise was abandoned before the drill reached the level where the oil sand is supposed to be located. Deep drilling—1200 or 1400 feet—was not regarded with favor at that date, says the Echo, and if a paying discovery was not made before a depth of 1000 feet was reached the enterprise was generally abandoned. Later developments in adjoining territory have proven very successful, and it is now generally conceded that deeper drilling will prove this once abandoned territory very valuable property. J. E. Beard and W. W. Stephenson are the gentlemen interested in the new developments on section 30, and they are of the opinion that substantial discoveries will be made on the property. They own interests in the river field and have thoroughly examined the west side country.

## LOS ANGELES.

The Whittier News says: The board of directors of the Central Oil company has just declared a quarterly dividend of 2 per cent on the outstanding capital stock, to be payable April 25 to all stockholders of record on April 20. Heretofore the company has been paying 1½ per cent quarterly, but owing to the increased production and consequent heavy sales it is now able to advance the dividend.

At the meeting of the board of directors of the Central Oil company of Los Angeles held March 11, a quarterly dividend of 2 per cent on the outstanding capital stock was declared, payable on or before April 25, to stockholders of record on the 20th day of that month. The company has been paying 1½ per cent quarterly, but the largely increased production and consequent heavy sales have enabled the directors to advance the dividend to 2 per cent. Senator Bulla says that this is one of the practical and conclusive evidences of improved conditions in the oil business, and also shows the growing importance of the Whittier field. Central's sales for the month of March will amount to about two hundred cars.

## MONTEREY.

By the 1st of April Graham & Kellerman, of Los Angeles, will have a drilling rig working in the Bitterwater district on the De Alvarez ranch. One carload of machinery has arrived and two more are on the way.

## ORANGE.

It is reported that the Brea Canyon Oil company is figuring on installing an enormous electric generating plant, to be run with the natural gas from the wells, the electricity to be utilized by the Edison Electric company, which has this section covered with wires. Another rumor is

that the Brea Canyon people are investigating the feasibility of putting a pipe line through Fullerton and Anaheim for the use of natural gas for lighting and heating purposes in both towns. There is a great quantity of natural gas from the oil wells in this field.

## SANTA BARBARA.

The Casimalia Oil company is still going down and is working two towers again. They have the best of prospects in sight. Mr. I. M. Ferguson is still managing the well.

The Pacific Oil and Transportation company, of San Francisco, who hold an option on the Western Union field until April 1, will begin developing oil on the Casimalia ranch.

The Record says: The Lompoc Oil Developing company has again reached a seepage of oil and is awaiting casing that the boring may proceed to a depth that shall prove the territory.

The Pacific Oil and Transportation company of San Francisco will set up an oil rig near Casimalia in the near future. Part of the outfit is already on the ground and the balance is en route.

The Record says: The Lompoc Oil Developing company has again reached a seepage of oil and is awaiting casing that the boring may proceed to a depth that shall prove the territory.

The Brookshire Oil company began drilling for oil this week. The company has come into possession of considerable property, including the Heacox, Flores and E. Hopkins ranches, making in all 450 acres.

On Tuesday the cap was removed from the Union well at Lompoc and the oil spurted forty feet high. The column at last dwindled to a height of four feet, when the well was re-capped. Two more wells will be completed at once, and the company will build a pipe-line to the ocean.

There will soon be six wells going down on the Los Alamos anticline, two by the Union company; two by the Western Union company and two by the Harkness company. If these new exploitations succeed in securing oil as has the Union company in its first well put down on the southern declivity, the opinion that this region, north and south of the coast range is the largest or greatest oil-producing territory in the known world will be confirmed, and millions will be expended developing the territory in all directions between the Los Alamos range and the Gaviota Pass. Pipelines are already talked of to the coast that the crude product may be turned to money as soon as secured.

## SANTA CLARA.

The Watsonville Oil company, which has expended about \$90,000 in the development of the Sargent tract for oil, has refused, it is said, \$300,000 for its interests.

The San Benito County Oil company has disposed of its well boring outfit to Col. E. J. Beane, who will remove the same next week to the Sargent tract in Santa Clara county. With Col. Beane are interested John Martin and E. J. de Sabla, who have a lease on several hundred acres adjoining

the holdings of the Watsonville Oil company, on which a 200 barrel well has been developed.

## SAN MATEO.

The High Gravity company will commence again as soon as the drive-pipe arrives for the deep well which is now down 1,135 feet.

The Paxton well is down 900 feet, with plenty of oil and gas. Underreaming is necessary, but the outlook is for a good well in a few days.

The San Mateo County Oil company is down about 1,300 feet, with a good showing of oil and gas. Youle & Mahoney are making good progress.

Gulberson is having a fishing job, having knocked a shoe off the 4½-inch casing on his deep well. He has genuine oil sand in the well now which is down 1,900 feet.

The Wiscorsin well turned itself loose again one day this week, and blew off the cap, the oil spouting over the top of the derrick. The well is still flowing, and is a good well as it is. It is down 1,335 feet, but will be sent down perhaps 2,500 feet to thoroughly test the country. This work will be done as soon as the pipe arrives.

## VENTURA.

The Uncle John Oil company are getting ready to begin operations again. They received a carload of pipe and machinery last week, which they are hauling out to the oil fields.

James Fox brings encouraging news of the work of the Sulphur Mountain Petroleum company. At 1,975 feet the drillers believe they have reached the third oil stratum. They have had some trouble with broken casings, but are about ready to begin again. The oil has raised to within 500 feet of the surface. It is of a light gravity and there are quantities of it. A great volume of gas comes from the well, so much in fact that the drillers are unable to have a light anywhere near the rig. Mr. Fox is one of the largest stockholders of the company. He thinks a bonanza is in his grasp, and we hope that it may be even so.—Free Press.

## WYOMING.

The Idaho-Wyoming Oil company, operating in the Fossil district are now waiting for casing. They have their well down 1,000 feet and believe the next few hundred feet will bring them a good well.

The Bettys Oil & Development company have a fishing job on their hands. They were drilling in a very hard formation when the stem broke and the bit was lost. It will probably require several days to remove the broken bit.

The Michigan-Wyoming Oil company are making good progress on their property north of Evanston. Unfortunately the formation was such that they have had several crooked holes causing bad delays but they have everything in good shape now for rapid progress.

Mr. W. J. Cashin, vice-president of the Evanston Oil exchange, has just returned from an extended trip through the Eastern states, where he has been inter-

esting capital in the rich deposits of oil in Uinta county. Mr. Cashin visited Chicago, Cincinnati, New York and Philadelphia and it is assured a number of new companies will soon be operating in the Uinta field as a result of his efforts.

Mr. G. W. Short, an experienced oil man from the Pennsylvania fields, has been in Evanston the past week making preparations for sinking two wells in the Fossil district. It is understood Mr. Short has secured some very promising sites and has already ordered drilling machinery which will be on the ground within the next thirty days. Mr. Short's company is composed of prominent Pittsburg and Sheldon capitalists who are ready to expend fifty to a hundred thousand dollars in development work. It is likely this company will be called the "Fossil Oil company" which should not be confounded with the Fossil Consolidated who are also operating here.

Reliable news reaches Evanston from Spring valley that at about noon last Wednesday miners working in No. 3 shaft at the Spring valley mines drilled into a fissure from which oil came spurting out with great force accompanied by gas. About twenty-five barrels of oil were bailed out that afternoon and oil has continued to flow steadily since. The oil is being stored by the company who evidently have an oil proposition on their hands. It is thought this flow comes from the famous Union Pacific oil well which is located on the same section as the coal mine. A great deal of excitement prevails here among those interested in oil development as it goes to show how extensive the field is. The oil from this mine is equal in quality to any yet taken from the field. Reliable reports say that the level on which this strike occurred is flooded and the mine has shut down on account of it. Every precaution is being taken against fire, armed guards keeping watch at the entrance of the mine day and night.

The following comparison between Uinta county oil and that taken from other fields may be of interest. The analysis of the Wyoming oil was made by the government; the other was made at the Waverly refinery of Pennsylvania. They are as follows:

Illuminating.....	76 per cent
Gasoline.....	11 per cent
Lubricating.....	103 per cent
Carbons and loss.....	10 per cent

Wyoming oil taken from the Union Pacific well.

Gasoline.....	17.1 per cent
Illuminating.....	33.4 per cent
Heavy Illuminating.....	27.1 per cent
Lubricating and paraffine.....	20.4 per cent
Carbons and loss.....	2 per cent

The following comparisons taken from the latest government report will well illustrate the above in value per barrel:

Illinois oil.....	\$5.00
Pennsylvania oil.....	4.00
Wyoming oil.....	7.00

Last Friday a good showing of oil was struck at both the American Consolidated well on section 34 and the Groshen & Carter well on the same section, in the Spring valley district. The American Consolidated are now down 1,700 feet and the G. & C. well 1,500 feet. Both companies will go deeper as they have not yet reached the main strata of sand.



**OIL STEAMERS NEEDED.****Oil Storage Facilities Taxed to Their Utmost Capacity.**

Increased facilities for the handling of oil in transportation by water are required. The few oil carrying vessels are overtaxed. The tankage of the Union Oil company in Ventura is full, and with the production of the new field near Lompoc, the absolute necessity of more ships becomes apparent. The Ventura Free Press tells of conditions in that county:

"Oil operations in Ventura county and the country tributary thereto are again suspended. Pumping is at a standstill and drilling is practically suspended. The Union Oil company has every storage tank, every place where it can put crude oil, full to the brim. As nearly all the small companies sell their product to the Union, they too are tied up.

"The cause of the trouble has been the lack of transportation facilities.

"The barge Santa Paula made frequent trips here recently and relieved the stress for a time, but things are as bad as ever again. The company officials hope to see a change within the next few days, however. The barkentine Fullerton cleared yesterday at San Francisco for Honolulu by way of Ventura, and the Santa Paula left Astoria yesterday bound for Ventura in tow of the Sea Rover. Both of these vessels will reach here to-morrow, and when both have loaded their full car-

goes a small hole will be left in the oil storage here.

"The Santa Paula goes north and will return as soon as possible. The Fullerton goes to Honolulu. This is the first trip of the Fullerton to this port, although she was built to carry Ventura oil to Hawaii. She is towed by the tug Rescue, which has made many trips here. The Fullerton is too big a boat to come to the wharf, so she will be loaded by means of a 500 foot hose suspended on buoys.

"The Fullerton carries 15,000 barrels of oil."

There can now be but little question that there will be a crowd of Texas oil men in the Green River fields of Wyoming, and that before midsummer nearly 100 drills will be dropping into as many wells.

**The Pacific Underwriting and Trust Company.**

Home office, Parrott Building, San Francisco, Cal.

If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

COMPANIES INCORPORATED under any State Laws desired.

STOCKS and BONDS underwritten.

Gold Bonds, interest from two to four per cent, for sale.

Address all communications to the Company at its Home Office.

**BEING DISMANTLED.****A Colorado Oil Refinery to be Taken To Texas.**

An oil refinery, located near Overton, a few miles from Pueblo, Colo., was built not many years ago by a number of independent oil operators, owning a small production in that field. The principal stockholders were Cleveland men. The cost of the refinery was estimated to be practically a million dollars. No expense was spared to make it one of the finest of its kind in the world. Much of the work was done by the Titusville Iron company and many of the fittings of the machinery were furnished by the Keystone Brass and Iron works of Titusville. Handsome brick buildings were erected and in all its appointments the refinery was one of the best.

Within a few years the available oil production for the refinery was greatly diminished and the plant was sold. A part of the machinery and fittings will be shipped immediately to Texas, where they have been sold to refiners, and the remainder will be stored unless sold immediately.

**Texas Oil Shipments.**

The Star Petroleum company has recently loaded at Port Arthur, Texas, six vessels with crude oil to fill an order recently sold to the Standard Oil company. All

these vessels are consigned to the Standard Oil company at Eastern Atlantic ports. The combined capacity of these vessels is 516,600 gallons, or equal to 12,000 barrels. Beside the above the Star Petroleum company has recently shipped a number of cargoes to New Orleans and also loaded the steamship Luckenbeck for shipment to New York city.

**THE AFTERMATH.****Santa Barbarans Who Invested in Beaumont Bring Suit.**

The Guarantee Oil and Refining company has brought action against William D. Robinson for an accounting of his management of the affairs of the corporation and for \$5,000 damages for the "willful neglect and mismanagement" of those affairs entrusted to him by the company. The complaint was filed last week by W. P. Butcher, attorney, and was subscribed to by J. C. Wilson, manager of the company.

It relates that Robinson went to the state of Texas to look after and promote the interests of plaintiff corporation in the fields at Beaumont, it being agreed that all necessary expenses should be paid, the services to be performed without compensation. Herein occurred the alleged willful neglect and mismanagement, "large sums of money being expended unnecessarily," the exact amount not being known by plaintiff.

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By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY**

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SAN FRANCISCO, CAL.



LUBRICATING OILS.  
The Year's Trade in These Oils  
Has Been Flourishing.

Apropos of the growing disposition of California oil refiners to pay more attention to the manufacture of lubricants, the following review of the lubricating oil trade in a recent number of the London Petroleum Review and Mining News, is of particular interest:

The lubricating oil trade, during the past year, has been in a most flourishing condition. It is, in fact, a better year than has been known for some time, both in regard to quantities sold and prices obtained. During the first months of the year, prices for the best lubricating oils rose by about 12s. 6d. per ton, and held their improved figure throughout the year. Cylinder and engine oils also made advances in prices during the year, amounting to something like 7s. 6d. per ton.

This advance in price is an excellent indication not only of the position of the oil trade and the great demand, but also of the conditions which have prevailed in the manufacturing and engineering trades of this country. During the twelve months of 1902, the quantity of lubricating oils imported into the United Kingdom totalled close on 36,000,000

gallons, compared with 34,450,000 gallons in 1901. These quantities were obtained from the contributing countries in the following proportions:

	1902.	1901.
	Gallons.	Gallons.
America	20,680,620	25,621,320
Russia	8,675,580	7,157,450
Germany	591,320	673,750
Belgium	671,160	688,150

Sundry smaller quantities have come from Holland, Canada, Italy, etc. America and Russia have shared pretty equally in the advance, the latter showing the larger increase.

This lubricating oil is, of course, dependent on the prosperity or depression of the manufacturing industries of the country, and a glance at the figures representing the chief of these indicates where the augmentation of sales has occurred. In the textile manufactures, very great increases have taken place, the foreign demand for cotton piece goods having advanced by nearly 12,000,000 yards. In woolen and worsted manufactures the increase amounts to nearly 8,000,000 yards. It is easy to see that for the turn-out of such enormous quantities of goods in these directions, how much greater must be the consumption of lubricating oils. The same may be said of the iron, steel and engineering trades,

which affect, of course, general lubricating oils and the lower grades. The following increases have been registered in iron and steel exported, which represents only a portion, probably about a quarter of the actual production:

	1901.	1902.
Iron and steel (tons)	3,570,104	38,867,719
Steam engines	44,257,935	44,777,713
Other engines and machines	13,554,409	13,974,099

Increases are also recorded for the exports of hardware and cutlery. As a whole, our manufacturing industries, judging solely from the returns of exports, the only gauge we have in many directions of our national position, have made excellent progress during the year, while this improvement has had wide results touching the other branches of the oil trade.

Articles of Incorporation.

The Miller syndicate has filed articles of incorporation at Bakersfield. The purposes of the corporation are to do a general business—to deal in real or personal property, to cultivate and develop lands; to sink wells for oil or for water; to deal in water rights and irrigation enterprises; to borrow money; to buy and sell stocks and bonds.

The principal place of business

is San Francisco. Directors: Lovell White, Thad San Francisco; F. A. Hihn, Santa Cruz; C. O. Miller and H. A. Miller, Oakland. Capital stock, \$10,000, one dollar shares: amount subscribed, \$3,956.

Price of Beaumont Oil.

Oil is selling at Beaumont at 65 cents and is steady. The result of this good condition with the oil people is that there is one man on Spindle Top who states that he will, in the near future, begin the drilling of eight new wells on block 38. This is but one statement of the intention of those owning property to develop. They think that as long as it goes this way there is some profit in the business.

We Could Sell  
Bad Mining Stock,

and a considerable quantity of it, to the clientele which we have built up in the past 18 months. That is because they have confidence in us. As we have never abused that confidence, we shall continue selling shares in companies like the Norwegian Consolidated (Gold) Mining Company, a prospectus of which we will be pleased to send you.

C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass.

Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
			Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been dis- tilled.	
	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
December, 1902.										
Costa Rica					900	\$194				
Guatemala					3,970	786	319	\$131		
Honduras			1,160	\$235	500	107				
Nicaragua					10,000	2,050				
Salvador					6,360	1,072	130	40		
Mexico					200	35	280	98		
Chili							1,717	377		
Ecuador			1,580	291						
British Australasia							1,067	265		
French Oceanica					1,050	212				
Alaska					550	116				
Hawaiian Islands			38,840	4,688	93,600	12,773	12,798	4,742		
Total			41,580	\$5,214	117,130	\$17,365	16,311	\$5,653		
January, 1903.										
British Columbia					500	\$117				
Costa Rica			1,210	\$152	40	7	71	\$44		
Guatemala					3,450	724	2,735	932		
Honduras					900	210				
Salvador			20	6	6,460	1,175	500	174		
Mexico					150	26	204	125		
Ecuador			350	80						
French Oceanica					370	84	10	6		
German Oceanica			10,890	1,223	3,000	683	205	112		
British Australasia							1,990	482		
Alaska					500	113	505	318		
Hawaii	1,452,000	\$43,400	10,306	1,827	32,550	6,987	13,119	5,849		
Tutuila					330	83				
Total	1,452,000	\$43,400	22,776	\$3,288	48,250	\$10,209	19,339	\$8,042		
February, 1903.										
British Columbia							781	\$397		
Costa Rica					250	\$53				
Guatemala					5,550	1,161	80			
Nicaragua					2,000	370	381	42		
Salvador					2,200	475	100	35		
Mexico			100	\$31	2,400	518	5,100	1,260		
Chili							1,114	298		
British Australasia							1,711	388		
French Oceanica			550	96	2,390	508				
Alaska					1,690	273	517	358		
Hawaii	2,120	\$105	9,165	1,219	25,000	5,455	9,15	3,839		
Tutuila					110	20				
Total	2,120	\$105	9,815	\$1,346	41,590	\$8,833	18,942	\$6,637		



**Oil Stock Market.**

This has been an usually lively week in stocks and some sales of magnitude have been made, the most notable being the purchase at one time, for cash, of 7,000 shares of Twenty-eight at \$3.25. The purchase was made by R. L. Cheney. All the Coalinga stocks show great activity owing to the near construction of the Standard's tanks and pipeline, which assure transportation. Kern River and Sunset stocks also showed improvement, and all indications point to a lively business for April with higher prices and big sales. The investing public are just beginning to realize that oil stocks are a profitable purchase.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, March 17:

CARIBOU.			
850 at	85	\$7 22	50
100 at	87 1/2		87 50
CENTRAL POINT CON.			
1,000 at	75		750 00
FAUNA.			
2,000 at	15		300 00
FOUR.			
100 at	67		67 00
HOME OIL.			
200 at	3 15		630 00
100 at	3 10		310 00
100 at	3 10 (B 10)		310 00
IMPERIAL.			
200 at	19 00		3,800 00
INDEPENDENCE.			
11,600 at	13		1,508 00
450 at	15		63 00
KERN RIVER OIL.			
25 at	14 00		350 00
LION.			
500 at	09		45 00
MONARCH.			
1,100 at	30		330 00
1,000 at	30 (S 2)		300 00
1,200 at	27		324 00
MONTE CRISTO.			
590 at	1 37 1/2		811 25
OCCIDENTAL OIL.			
3,300 at	23		759 00
800 at	24		192 00
2,800 at	25		700 00
500 at	22 00		110 00
OIL CITY PETROLEUM.			
500 at	32		160 00
10,200 at	31		3,162 00
PEERLESS.			
20 at	15 75		215 00
REED CRUDE.			
1,000 at	31		310 00
1,000 at	32 (B 20)		320 00
400 at	32		128 00
SENATOR.			
20 at	70		14 00
SOVEREIGN.			
3,400 at	43		1,462 00
283 at	42		98 86
240 at	44		105 60
STERLING.			
100 at	3 45 (S 90)		345 00
100 at	3 45		345 00
385 at	3 40		1,309 00
500 at	3 55		1,775 00
100 at	3 50		350 00
10 at	3 37		33 00
500 at	3 60 (B 90)		1,800 00
SUPERIOR.			
1,000 at	07		70 00
THIRTY-THREE.			
40 at	9 00		360 00
TOLTEC.			
500 at	15		75 00
TWENTY-EIGHT.			
8,100 at	3 20		26,325 00
100 at	3 30		330 00
200 at	3 50 (B 60)		700 00
UNION.			
10 at	68 00		680 00
10 at	68 50		685 00
57,233 Shares		Amount	\$53,626.71
ALASKERS PACKERS.			
25 at	154 25		3,856 25
CALIFORNIA WINE.			
10 at	105 25		1,052 50

**OCEANIC STEAMSHIP.**

50 at 15 00	750 00
PACIFIC GAS & IMPT. CO.	
25 at 37 25	932 25

110 Shares	Amount	\$6,591.00
BAY COUNTIES POWER CO. 6's 2d MORTGAGE.		
4,000 at 100 1/2		\$4,015 00
4,000 Shares	Amount	\$4,015.00

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma	1.35	2.00
Apollo	.35	.37
Aztec	.80	.90
Bear Flag	.05	.10
California Standard		.16
Caribou	.87 1/2	.90
Central Point Con.	.70	
Chicago Crude		.25
Clairmont	.18	.23
Fauna	.14	.15
Four	.66	
Hanford	110.00	
Home	3.00	3.05
Imperial		20.00
Independence	.12	.13
Junction	.08	
Kern	4.75	5.50
Kern River	13.00	14.50
Lion	.08	.09
Monarch of Arizona	.27	
Monte Cristo	1.35	1.40
Occidental of West Va	.21	.23
Oil City Petroleum	.31	.32
Peerless	15.25	
Pittsburg	.30	
Reed Crude	.31	.32
S. F. & McKittrick	2.50	3.00
San Joaquin O. & D.	7.25	
Senator	.75	
Sovereign	.43	
Sterling	3.40	3.45
Superior	.06	.08
Thirty-three	8.50	9.37 1/2
Toltec	.15	.20
Twenty-eight	3.20	3.30
Union		68.00
United Petroleum		118.00
West Shore	3.00	
Wolverine		.57

**W. P. SWENEY.**

Phone South 802

Contractor for Oil and Water Galvanized Iron and Steel Storage Tanks.  
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Refiners of Crude Petroleum  
Manufacturers of High-Grade Asphaltum  
Illuminating, Lubricating and Neutral Oils  
Stove Distillates, Etc.

228 & 229 Parrott Building

San Francisco, Cal.

Telephone, South 802

Works: Rodeo, Contra Costa Co., Cal.

**NOTICE OF STOCKHOLDERS' MEETING.**

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 24, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

**Life Insurance Policies**

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Loans Negotiated  
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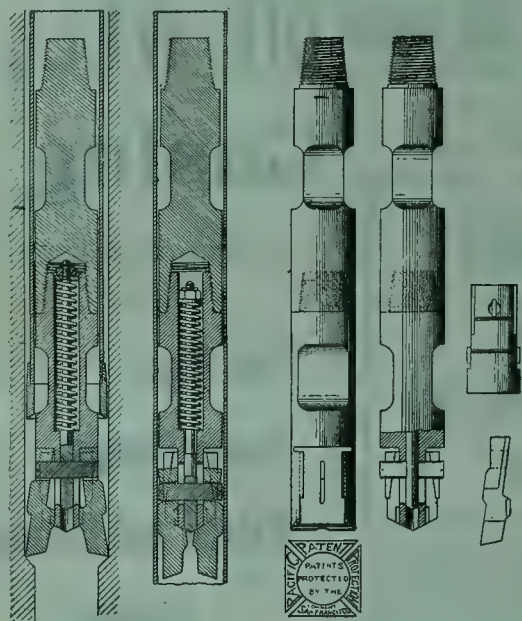
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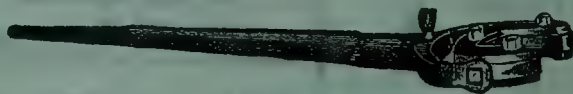
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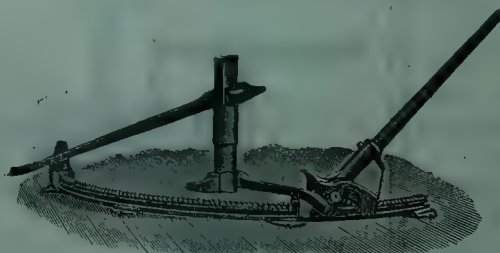
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Vol. 4. No. 21.

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# PACIFIC OIL REPORTER

VOL. 4. No. 21.

SAN FRANCISCO, CAL., SATURDAY, MARCH 28, 1903.

PRICE, TEN CENTS.

## FUEL OIL.

### Interesting and Instructive Lecture on Fuel Oil and Its Uses.

#### Facts and Figures Showing the Methods of Testing Oil, How It Is Used for Fuel, How Handled, and the Characteristics of the Different Fields.

BY PAUL W. PRUTZMAN.

[Lecture delivered before the Oil Fuel Union by Paul W. Prutzman. This lecture was prepared as a popular lecture and does not pretend to scientific accuracy.]

Fuel has been a leading feature in the domestic economy of man since the earliest ages. Whether fire was stolen from heaven, from the volcano, or from the lightning, or whether it originated in different places and from different causes, the fact remains that it has been known since the infancy of the human race, and that only the most degraded tribes are ignorant of its use and its benefits.

For many ages wood was the sole fuel, as being that naturally to hand to our ancestors. It is within the last couple of centuries that coal has come into anything like general use, while but a few years have elapsed since the use for fuel of gas and petroleum commenced.

The earliest mention of the use of fuel oil which I have been able to find is in "Lunge's Distillation of Coal Tar," published in 1880, where an apparatus is described for burning tar, and said to be used also for burning oil. This was an arrangement of shelves over which the oil flowed by gravity, being consumed by air passing between the shelves. Such a primitive arrangement was in use in this city not long ago, and I presume is still. It is needless to say that anything so crude could be applicable only to a few purposes, and could not meet the demands of extensive and economical use. With the invention of the gas-pipe burner, by which the oil is atomized or blown into a spray by a jet of steam or air, the use of fuel oil really commenced. I do not know by whom this arrangement was first used. It has been in use in the oil refineries in the East for a good many years for burning residues under their boilers and stills. All our later forms of burners are adaptations of this simple form, and many of them not so good as the original.

The gas-pipe burner is shaped something like this. (1) The drawing is a section down the length of the burner. Oil enters through the small inner pipe, steam passes through the outer pipe, blowing the oil out in spray through the

narrow orifice. For distillates and the lighter crude oils no better burner has, in my opinion, ever been invented. But with very heavy oils the atomization is often incomplete, the oil passing out in intermittent gushes, which sometimes extinguish the fire, causing danger of explosion in the firebox. To secure better mixture of steam and oil a great many devices have been patented, some good, some bad, many indifferent. As these devices are almost all on the market it would be out of place for me to point out their merits and demerits. I might say that for any particular use a burner could be found which would be as good as any burner could be. I do not think there is much room for improvement in injection burners; for that matter there never was a great deal. The extravagant claims of inventors of new burners have very little foundation in fact. For ordinary work there are but few of the patent burners which will give materially better results than the old simple burner here described. In the case of vaporizing burners, that is burners which will consume oil without the use of steam, air or water, it is different. There is great demand for such a burner which will work satisfactorily for household use, and I am afraid there always be. The range of possible combinations has been pretty well covered; and, after examining a good many of them rather critically, my candid opinion is that one is about as bad as the next. They all fail somewhere. Perhaps I am too pessimistic in thinking the question insoluble, but the specifications are so severe, that I shall have a very high opinion of the genius of the man who fulfills them.

Now as to the suitability of petroleum for fuel. The best fuel, from the theoretical standpoint, is that which will give the greatest heat, with the greatest safety, and easy of regulation, and the least labor in handling, use of storage space and production of unnecessary detritus. Before comparing the heating values of the solid and liquid fuels I should like to define calorific value, and describe briefly the way in which it is determined.

The unit of heating value most in use is the calorie. This is the

amount of heat which will raise the temperature of one kilo (about two pounds) of water one degree centigrade. If a kilo of fuel when burned in an apparatus which saved all the heat, raised one kilo of water one degree centigrade, the heating value of the fuel would be one. If the one-thousandth part of a kilo of fuel raised a kilo of water one degree centigrade, the heating value of the fuel would be one thousand. Any weights can be used; the heating value is calculated from the rise in temperature of the water, multiplied by the number of kilos of water, and divided by the fraction of a kilo representing the amount of fuel taken.

The instrument which is used for these tests is like this. The steel capsule is made of the strongest tool steel, and has ends which screw in. The fuel to be tested, mixed with a chemical which furnishes oxygen, is placed in the hollow in the centre, and tightly compressed. The mixture is fired by a fuse, heated by an electric current. The capsule is placed in the jar, and a measured quantity of water put in around it. The temperature being taken, the bomb is fired, and the temperature of the water rises. If we took a gram (1-1,000th part of a kilo) of coal, and 2 kilos of water, and the temperature rose four degrees, the calorific value of the coal would be four times two, divided by 1-1,000, giving 8,000 calories as the value of the fuel. Of course this is the merest skeleton both of the apparatus and of the process. The instrument is really quite complicated, and the using of it somewhat delicate, but these are the essentials, and you would not be interested in the detail.

I want now to call your attention to the table on this sheet, the first column represent average calorific values for hard and soft wood, soft coal, anthracite, coke and petroleum. Of course these are averages only, as each of the fuels varies a good deal, these figures are averaged from a large number of determinations collected by Poole. These figures show the number of calories for one kilo of each fuel, are for hard wood, 4,620; for soft wood, 5,035; for soft coal, 7,578, for anthracite, 7,841, for hard coke, 7,985, and for petroleum, 10,800. The bands below each figure are proportional to the figures, so you can see graphically how the figures compare. The point which I wish to make is that average petroleum gives, weight for weight, about twice as much heat as wood, and over a third more than coal.

Now as the volumes which have to be handled into the firebox: This is the nearest thing we can get to the labor of handling the fuel. Really this does an injustice to the oil, as it is handled by machinery while solid fuel requires hand labor. We have here soft wood 3.22, hard wood 2.99, soft coal 0.85, hard coal 0.77, coke 1.90, petroleum 1.00.

These figures show the volume of quantities which give the same amount of heat.

Then we have the factor of ash.

The removal of ashes is no small item of expense at a large installation. These figures, like those for volume, show the proportionate weight of ash from fuel giving the same amount of heat. The figures are soft wood 1.00, hard wood 1.43, soft coal 24.6, hard coal 23.3, coke 21.7, petroleum none, or a trace. I want to repeat that these figures are averages only. I would not want anyone to carry away the idea that I had stated that soft coal gave exactly 24.6 times as much ash as the equivalent quantity of wood. They are averaged from a very large collection of figures, and are probably accurate as averages.

Now in the last column I have shown by proportionate lines the actual amount of heating value which could be bought for the same amount of money, taking the present prices ruling in San Francisco and making allowance for cash. The figures are, wood 53c, soft coal \$1.06, anthracite 76c, coke 78c, oil \$1.66. That is to say, if for a dollar you could buy coal which would furnish a certain amount of heat, if you bought oil instead you would get actual heating value 60 per cent greater, and have all the other advantages of using thrown in. From our standpoint, that of fuel producers, I mean also, that oil might rise in price about 50 per cent, over its present price, and still have great advantages over coal in the market.

There is a further advantage in the use of liquid fuel which may not be so apparent: I speak of the ease of regulation of the draft, and the attendant factor, the possibility of completely consuming the fuel in the firebox. Here are rough sketches of a boiler firebox burning coal, and the other with a simply oil installation.

In the coal furnace, the coal lies on the grate bars in a rather thick layer, which is constantly changing in thickness and permeability by reason of burning down, replenishing and slicing. As all the air for combustion has to pass through the bed of fuel, and the draft would be practically constant, the result is that the quantity of air is constantly changing. The result of this is that while at one minute the air supply is too little, so that smoke and unburned gasses are rolling up the stack, a few minutes later, the fire having in the meantime burned out somewhat, the air is in excess, and carrying a large part of the heat up the stack. With oil the proposition is entirely different. There is no bed of fuel to restrict the draft; it has a clear course. If the amount of oil supplied is increased the steam supply has to be increased also, to prevent smoking. This increases the velocity of the flame jet, and this in turn draws in more air, so that the air supply is largely self regulating. The difference is that while with soft coal a skilled fireman can only by constant attention keep the draft anywhere near right, with oil any man of ordinary sense can keep it day in and day out just where it ought to be, except for momentary lapses.

Not only is this a great saving



of labor, but it is a great saving of fuel. Probably you know that the burning of coal is a process of distillation, the volatile parts of the coal being gasified by the heat of the incandescent carbon below, and burned as they pass back to the flues. Now when the burning gases come to the mouth of the flues at the rear end of the boiler the flame is extinguished, and any gas not already burned passes up the chimney and is lost. So it is very important to so mix air with the gases from the fuel

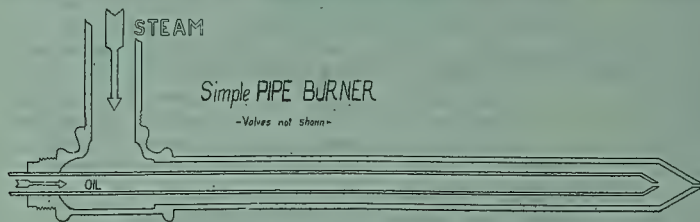
the characteristics of crude oil, and their relation to the usefulness for fuel purposes.

The gravity of an oil is the first and easiest test, and is most widely known. At the same time it is about the least informing of all the tests to which crude oil is put. Gravity refers to weight. The specific gravity is the weight of a certain quantity, divided by the weight of the same volume of water. If we weighed a pint of water and found that it weighed exactly a pound, and then found

heated to bring the oil to the temperature desired. When the temperature of the oil is what we wish, the plug which stops the orifice is drawn, and we count the number of seconds required to fill the 100 c. c. flask. Knowing the

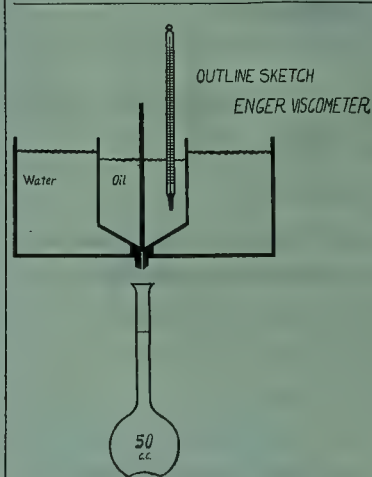
oil are often used up in handling it, this difference is no mean item. Then again it is more difficult to burn a heavy oil, for this reason: The oil when thrown into the fire-box must be in the state of very fine spray. These minute particles are turned into gas by the heat of the furnace, and never touch the walls. But if larger particles are thrown in, they are not gasified completely, but reach the wall or baffles in a liquid state. On touching the intensely heated walls these drops are instantly decomposed into gas, but leave behind them a little carbon. If this state of affairs continues long, the carbon will continue to form, until it breaks off of its own weight or is removed. This carbon not only causes a loss, but often interferes greatly with proper combustion, sometimes quite preventing good steaming, particularly in locomotives where the fires are forced hard. To entirely atomize a heavy oil requires more steam through the burner than is needed with light oil, and, as burners using light oil consume from four to five per cent of the total steam generated by the fuel, a difference of one or two per cent is a notable loss.

The viscosity of an ordinary 14 gravity oil at normal temperature is somewhere about 250, of a 17° gravity oil about 120, of a 20° gravity oil about 35, of a 22° gravity oil about 10. These are averages, of course; the oils of the same gravity differ considerably among themselves. But there is another quality which offsets this to a certain extent. I speak of



that they will all burn under the boiler, before reaching the rear end of the flues. In burning solid fuel there is nothing to accomplish this except the natural draft currents, which move in straight lines. But with oil fuel there is the strong mixing action of the powerful jet, which eddies back from the baffle or firewall, causing currents in all directions which mix air and gas very effectively. The practical difference is that while with solid fuel it is impossible to prevent a considerable

that a pint of a certain oil weighed nine-tenths of a pound, the specific gravity of the oil would be nine-tenths, or as it would be usually expressed in Beaume degrees, which are arbitrary figures each of which expresses a certain specific gravity. The Beaume degree corresponding to .9 is 24, to .85 is 33, and so on. The gravity refers to the weight only, and if we draw any inference from this figure as to other qualities, it is by inference and analogy only, there is no necessary connection.



number of seconds required to fill the flask with water in the same manner, we simply divide the time for the oil by the time for the water, which gives us a measure for the comparative thickness of viscosity of the two liquids.

The viscosity of the oil is very important from the standpoint of the fuel user. The oil has to be handled through pumps, pipes and valves, all of which offer resistance to its flow. It is evident that a more viscous oil requires greater pressure, and, therefore, more power than a thinner one. As from two to five per cent of the

FUEL.	CALORIFIC VALUE.	VOLUME.	ASH.	
Hard Wood	4620	2.99	1.0	
Soft Wood	5035	3.22	1.4	
Bitum. Coal	7578	0.85	24.6	
Anthracite	7841	0.77	23.3	
Coke	7985	1.90	21.7	
Petroleum	10080	1.00	Trace.	

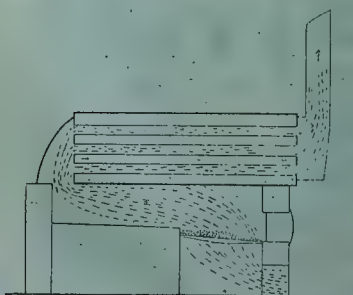
part of the heating material from passing up the stack unburned, with a properly arranged oil burner system it is possible to burn practically everything in the front part of the furnace, so that analysis of the waste gasses passing up the stack shows only a trace of combustible matter. This is an advantage apt to be overlooked, but nevertheless very important.

Now let us look for a moment at the suitability for fuel of particular oils. All oils are suitable for fuel in some degree, some more, some less. I would like to point out a few of

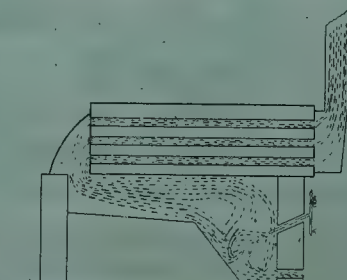
However in practice the gravity indicates something as to these other qualities, that is viscosity, flash point and heating value.

Viscosity is the thickness of an oil, or a measure of its thickness. You know that water is thin and limpid, while engine oil is thick and viscous. Now if we measure by suitable means, how much thicker the engine oil is than the water, we have a measure of its viscosity, or for short its viscosity.

The instrument used in making these determinations is shown in the sketch. The inner cup is filled with oil, the outer cup with water which is



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the fact that the oils of widely different viscosities at low temperatures are much nearer together at high temperatures. This is shown in the diagram (4.) This shows the viscosities at different temperatures of the four oils just mentioned. The vertical lines show the temperatures at which tests were made; the horizontal lines indicate the viscosities. Having made a test at a certain temperature we would find the line representing that temperature and the horizontal line showing the viscosity found. Where these lines intersect we would place a dot. Then making another test at a higher temperature we locate the proper lines and place another dot. When all the tests are made, we connect the dots by straight lines, thus getting a broken line which shows graphically the change in viscosity with changing temperature.

Now I would call your attention to the 14° oil which at 75° temperature had a viscosity of 250, but had fallen, at 180°, to only 6. The lightest oil, which at 60° had a viscosity of 9, had fallen at 180° to a little over 1. That is, the heavy oil when heated to 180° was thinner than the light oil cold, and but little thicker than

gas from this oil might be ignited, causing fire or explosion. This danger can be guarded against by ordinary care in storage, and with this care I think that low flash oil can be used with safety. So far



as the advantage goes it is with the heavy oils, as they generally have flash points much higher than those of the lighter oils. So far as heating properties are concerned, the flash point cuts no figure whatever.

As to heating value. The theoretical quantity of heat which an oil will release in burning de-

hydrogen and carbon, and the hydrogen has a heating value about 4½ times as great as that of the carbon. It follows from this that the greater the percentage of hydrogen in the oil, the greater we would expect its heating value to be, and, as this percentage of hydrogen is higher in the light oils than in the heavy oils, they have in general the greater fuel value. This difference, on equal weights, runs somewhere about eight per cent in favor of the light oil, but when we figure on equal volumes, and the oil is bought and sold by volume, the net difference in favor of the light oil is only two or three per cent.

Now we have in favor of the light oil, the greater heating value, and the greater economy in handling and firing, and in favor of the heavy oil, a lower price. I think that these differences just about balance. My reason for this may seem rather backhanded—it is that in general, the body of purchasers keep the prices of the two oils so balanced as to offset the difference in value. I do not mean to say that all users have this much sense, but one man's experience is added to another's, and in the long run, if considering the difference in actual economic value, one oil is higher priced than another, the high-priced oil will not sell. If you wished to go back of this, and make strict comparisons between oils at different prices, it would not do to trust to generalities, but close and definite figures on those particular oils would have to be obtained.

There is one other test which is often applied to crude oils, and sometimes a good deal of stress is laid on it. I refer to sulphur. I am just a little bit skeptical as to the importance of a small amount of sulphur in a fuel oil. The old idea was that the sulphur would burn to sulphuric acid, and corrode the flues and flue sheets. I have my doubts first, as to whether sulphur will really burn to sulphuric acid in the oil flame, which is generally speaking a reducing rather than an oxidizing flame. And even if it did burn to sulphuric acid, I doubt whether this acid, in the state of vapor, and strongly diluted in the flue gases, would have any effect on dry iron or steel. At any rate, users of fuel in this country seem to be very little troubled by sulphur. The percentage here rarely

runs over one and a half, in Sunset oil which is the highest of which I know. At Beaumont, Texas, where they use or claim to use a method for reducing the sulphur, it runs about 2 or 3 per cent in the crude oil, and one-half per cent in the treated. It is claimed that if this is not removed the effects are bad. Of course in oil for refining the case is very different; there any notable proportion of sulphur is very objectionable.

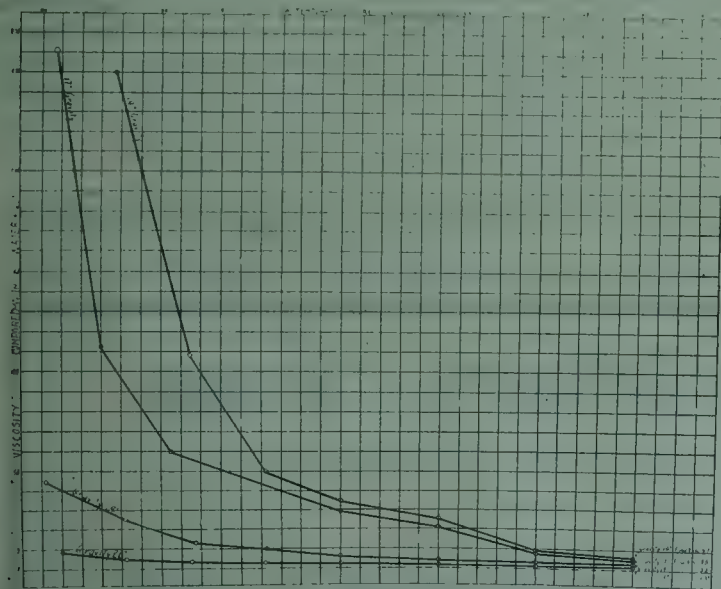
I trust that these technicalities have not too far trespassed on your patience. It seems to me that, dry and barren as they are, everyone interested in oil should pay some attention to them. Perhaps I think that because these things are of absorbing interest to me, but it is certainly a fact that the lack of definite information has often in the history of oil production in our State, caused great losses which might well have been avoided. But I will now turn to a very brief description of the oil fields, which are of more general interest.

The producing oil fields all lie below the central line crossing the State from east to west. They range from Los Angeles on the south to Coalinga on the north, and there seems to be good prospect for production soon being extended considerably further north.

The southernmost field in the State, as just said, is the city field of Los Angeles. The wells here are shallow, and almost all very small producers. The oil is black, and mostly about 15° gravity, viscosity about 250°, flash 200 to 250. It is used almost entirely for fuel purposes. Here is a table of the figures which I am reading which may enable you to follow them with less difficulty. (See page 9 for table.)

The next district is to the east, covering large parts of Ventura county. The principal fields here are Fullerton and Whittier. The Fullerton field has been developed to some extent for many years, but within the last year the Santa Fe Railroad company has made large extensions. The oil runs from 22° to 37° gravity, the larger part of which is of the heavier kind. The viscosity ranges from 30° down, and the flash from 150° down. Most of this oil is refined, though some of the heavier is used for fuel. The Whittier field furnishes principally an oil

Continued on page 9.



This shows how oils of different gravity and viscosity at a low temperature, when heated to a high temperature show the same viscosity.

the light oil at the same heat. So we can overcome this excessive viscosity by heating the oil. This of course takes some steam, but most of the heat goes back into the fire-box, and, even were it all lost, the loss would be much less than if the heavy oil were used cold.

Now as to flash point. Flash point is defined as the temperature at which an oil will give off an inflammable gas or vapor. This does not mean that the oil will explode at this temperature; in fact oils cannot explode spontaneously. It means simply that at this temperature the oil will give off inflammable vapors, which will explode if MIXED WITH AIR AND IGNITED.

The flash point is determined with an apparatus like this. This is what is called the open electric cup and is the standard in San Francisco.

The importance of the flash point is a matter of safety only. If large quantities of low flash oil were carelessly stored there would be the possibility that the

depends mainly on the proportion of hydrogen to carbon in the oil. Petroleum, as you may know, are composed almost exclusively of

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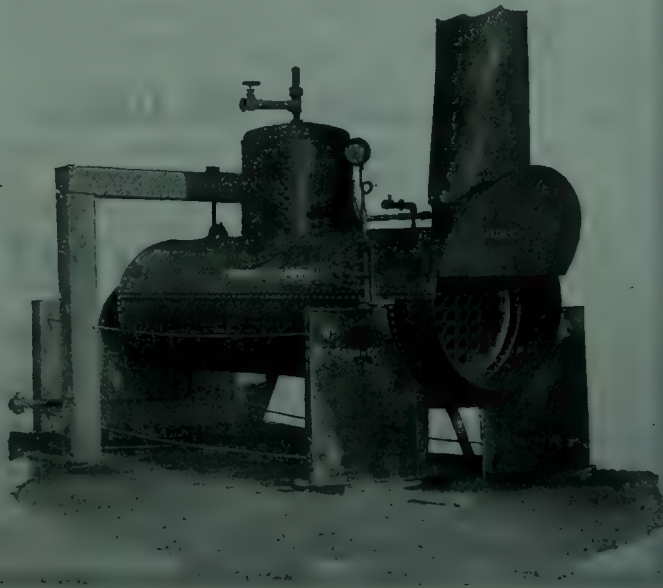
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## THE PIPE - LINE.

### Oil is Now Being Pumped From Bakersfield.

The pipe-line of the Standard Oil company from Bakersfield to Pt. Richmond, on the shore of San Francisco bay, is completed, and the pumping of oil has begun.

On Tuesday the oil had reached Pond, the first pumping station on the line, and the four tanks were being filled. These have a capacity of 35,000 barrels each, and from these the oil is being pumped, when re-heated, to the next station, Corcoran, where the process will be repeated.

A few facts about the line will be of interest.

This line is one of the largest pipe-lines in the world. The line is eight inches in diameter and for the initial work a flow of about 10,000 barrels a day will be maintained, although this figure is less than half the capacity of the pipe-line if pressed to the limit. The pipe-line is constructed on a scale never before attempted even by the Standard Oil company. In Pennsylvania and Ohio there are longer lines with a greater delivery capacity, but none which in length and capacity together equal the California line now completed. As an illustration of the magnitude of this enterprise, it may be mentioned that there are ten pumping stations along the line with an installation of four 150-horse power boilers each, although the pumps which are now installed will not have

anywhere near capacity enough to tax the power of the boilers.

Starting from Bakersfield, the first station is at Waite, where the main tanks of the company are located. From Waite the line goes to Pond, between twenty-five and thirty miles distant, that being the average distance between the stations. Then the pumping stations follow along as follows: Corcoran, Lathent, Mendota, Dos Palos, Newman, Ver-nalis, McCabe and Maltby. This latter pumping station is near Avon, on the shores of Suisun bay, and is the last station before Point Richmond is reached.

Besides the work on the laying of the line, the erection of the pumping stations has been a costly task. All the construction work on the stations has been done by the company. As has already been stated, each station contains a boiler installation of 600 horse-power, and these are housed in a brick building separate from the pump house in order to prevent any possibility of the oil becoming ignited by the fires in the boilers. In the main building the pumps are installed. These consist of the main pump and the heater for warming the oil, so that it will flow more freely through the pipes. In cold weather the oil congeals, and if some means are not taken to keep it at a moderate temperature it will clog the pipes and cause endless trouble.

A third building is used for the quarters of the men employed at each of the plants. There are seven men required to operate each pumping station—a chief engineer, two assistant engineers,

two firemen, a telegraph operator and a watchman.

Incidental to the operation the company has in operation a complete private telegraph system running along the route of the pipe line from San Francisco to Bakersfield. The line comes from San Francisco across the bay to Oakland and to the Oakland office of the Standard Oil company, in the Central Bank building, to Point Richmond, and thence along the line as described.

Some figures are interesting.

Each mile of the pipe will contain a little more than 250 barrels of oil, so that, not counting the oil in the great tanks at all the pumping stations, there will be in the pipe alone over 100,000 barrels of oil in process of being pumped to the refinery. In order to fill this pipe in a day it would require the product of 1,000 wells having a capacity of 100 barrels a day.

When the line is in complete running order it is estimated that it will require a little less than ten days to send the oil from Bakersfield to the refinery. This will give the line a capacity of 10,000 barrels a day. By using greater pumping power this capacity can be doubled.

Each mile of the pipe weighs 74.58 tons, so that there were in all over 20,000 tons, which, loading forty tons to the car, would make 515 carloads. These if stretched out would make a train over four miles long.

The boilers, pumps, tanks and plant for the combined ten pumping stations made a tonnage of over 3,000 tons, and filled seventy-five cars.

The pumpman must know the exact quantity of oil that is passing between two stations. From north to south he telegraphs the amount of oil his register shows. If the registers do not tally it is proof that the oil is not finding its way through the pipes as it should. The shortage is caused either by a leak or by an obstruction in the interior of the pipe. Here the mechanical genius of the linemen asserts itself. A novel device, known as the "go-devil," is inserted into the pipe. It moves through the pipe at the same speed as the oil, both being propelled by the pressure transmitted from the pumps. As the "go-devil" can only be located by its clicking noise while in motion, it must be followed up and down hills by relays of men. If its clicking ceases, it is proof that some obstacle has been encountered. In this way the linemen can determine the exact spot at which repairs must be made to enable the oil to resume its normal flow.

### Yes, 'Tis Better Than We Claimed.

We always said the stock of the Norgewian Consolidated (Gold) Mining company was good, and we have conscientiously advocated its purchase. It now promises to prove even better than we thought; so, again, we urge you to look into it before it is too late.

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### Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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In laying an asphalt pavement it is just as necessary to select a high grade asphaltum—one that is refined with great care and attention—as it is to select a good brand of Portland cement when you propose to make good concrete or produce a good sidewalk. The Portland cement binds the grains of sand and gravel together. The asphaltum occupies the same position and cements the grains of sand together which make the wearing surface of your street. When a proper quality of asphaltum has been selected for a pavement, it is then a very important matter to select the proper quality and grading of sand. By grading of sand is meant of all sizes that will pass through an eight-mesh screen, a certain percentage of which should pass through a 200-mesh screen. The sand should be thoroughly tested in screens ranging from eight-mesh down to 200-mesh. When the sand is properly graded it can then be determined what quantity of filler is necessary, and this should be composed of ground limestone or powdered granite.

Every well-equipped contractor who is disposed to lay a first-class asphaltum pavement, has all the machinery and appliances necessary to mix these materials properly, just as any contractor who is operating in Portland cement is equipped with the necessary tools and materials to lay his work properly.

With the proper appliances and the selection of good material, a pavement constructed with asphaltum is fully 100 per cent better and will stand more wear and tear and be more satisfactory to traffic than any street pavement which can be laid with bituminous rock. The advantage of mixing this material is evident inasmuch as it gives a street surface of absolute uniformity. The mixtures are all made by percentages and one square foot of street is absolutely the same as another square foot. There is no trouble with the surface rolling out of shape, it is much more stable than bituminous rock, and does not become soft and spongy under the changes of temperature, but remains smooth and perfect as a billiard table, continually. This surface mixture should be laid on a foundation composed of cement

concrete. On the concrete foundation should be laid a layer known as a "binder course." This also is composed of broken stone of all sizes up to one inch in diameter. This stone is heated and mixed in a proper mechanical mixer with sufficient asphaltum to bind it together. Then it is spread upon the concrete foundation, raked out smooth and rolled with a five-ton roller. When it is completed it is perfectly smooth and even in its grade. The surface mixture is then spread upon this binder course at a temperature of not less than 250° heat. This hot material at once adheres to the binder course, and when raked out smooth and rolled with proper steam rollers it becomes very compact and complete in its condition, and does not have the tendency to roll and break up that a bituminous rock pavement has.

Another great advantage in laying an asphaltum pavement is the fact that no large heating plants are used or the material is not deposited upon the roadways. All the heating and mixing of the material should be carried on in a yard away from the business centers of a city, and the business traffic of the city need not be disturbed by placing machinery and large quantities of material in the roadways, which many times are required to remain there for a long time before using.

Another advantage is that the work goes forward much more rapidly than it can go with bituminous rock. With the same number of men employed by a bituminous rock contractor, an asphaltum contractor would lay at least double the amount of street pavement in one day that the bituminous rock contractor could cover. The result of this operation is that the work can be done and gotten out of the way, and neither traffic or business interests hindered to the extent that the bituminous rock contractors do.

It seems to be the general impression in and about San Francisco and adjacent cities that a first-class modern asphalt pavement would cost a great deal more money than the old-fashioned ordinary bituminous rock pavement. This is not the case. By reason of improved machinery and the rapidity with which an asphaltum

pavement can be laid, asphaltum pavements can be laid at a price as low as bituminous rock has ever been laid in the same territory. Consequently, the public can have a first class modern street pavement at a price as low as they have been paying for the old fashioned bituminous rock roadways laid heretofore.

References can be given from many of the city officials throughout the East as to the quality of California asphaltum pavements and their durability. The fact that this State is shipping thousands of tons annually to the larger Eastern cities for street pavement purposes is sufficient evidence that the quality of our asphaltum is recognized as being among the best.

### Kansas Oil.

According to a Kansas paper, there are now fifty oil companies operating in the Kansas oil fields and thirty-one of them have their headquarters at Chanute. Of the half-hundred organized companies, seven have headquarters at Humboldt, four at Iola, three in Kansas City, thirty-one in Chanute, two in Cherryvale and one each in Colony, Neodesha and one in Bloomington, Ill., making a total of fifty. The entire territory under lease covers 79,717 acres. Number of producing wells, 241.

### Recent Assays Received By Us.

From the Norwegian Consolidated (Gold) Mining company show the value of ore stoned from the different levels to run \$1425.50 and \$630.20 respectively to the ton. A few more strikes like these and no more shares will be offered to the public. There is an opportunity to get in now at 65 cents.

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Published Weekly

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

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The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
11 Columbia street, Boston, Mass.  
20 Broad street, New York City.

SATURDAY.....MARCH 28, 1903

The address of Paul W. Prutzman, a chemist of recognized ability and an authority on matters pertaining to crude and refined petroleum, should be read with careful attention. We doubt if the information it conveys has ever been brought to the attention of the public so clearly and so vividly.

To one point we wish to call special attention.

Many people wonder how it is that the thick, heavy oil of the Kern River field can be pumped a distance of 278 miles through a pipe-line. By referring to that portion of the address devoted to the viscosity of oil it will be seen that heavy oil, when heated, flows as readily as the light oil, and can be pumped as readily as water.

The pipe is covered with a prepared felt and asbestos, and the oil when heated will retain its heat with but little loss during the distance it travels between stations. This matter is explained in the address and in the table which accompanies it so clearly that it is easily understood.

This is but one matter touched upon. The whole address is worthy of careful study.

The prophecy is made, and we believe truly, **Electricity Will Not Injure the Oil Industry** that in a few years electricity will be practically the only power used on the Pacific coast. Many believe that in a few years all our manufactories, all our railroads, every industry in fact which uses power, will ob-

tain it from the wires which will bring it cheaply from where it is generated by the now unused waters of the Sierras.

Soon there will not be a railroad that will burn either oil or coal. The only power used will be electricity, brought down from the Sierras.

Experiments in the East have demonstrated how practical is the use of electricity for hauling freight and passenger trains. There is no trouble to obtain and apply all the power necessary, and any amount of speed can be obtained.

It is said that at the present time the Southern Pacific is making the preliminary arrangements is obtaining water rights, purchasing land when necessary, and is in fact perfecting its initial plans for the installation in the future of gigantic electrical plants, which will be established at different points in the State, and will utilize the millions of horse-power that are now going to waste from the Sacramento, Feather, Russian, American, Kings, Kern, and rivers south of Tehachapi.

This use of electricity will not interfere with the oil market or lessen the demand.

It is now understood and accepted by scientists and chemists that crude petroleum is entirely too valuable a product to be used as fuel. It is too valuable a product to be burned up.

Crude oil is just like many other substances which in the past have been burned up or thrown into the bay until the dis-

covery was made they were too valuable to be thus used.

Crude oil contains within itself elements, which, rightly understood, and treated by proper chemical processes will make oil entirely too valuable to be used as fuel.

California oil is just beginning to be understood. The chemists have begun to think that in time they can refine it so that our oil will become as valuable or more valuable than Eastern oil. At any rate it will be far too valuable to be used for fuel.

Consequently the railroads and manufactories will be obliged to use the power that is now going to waste in our rivers. They will either establish gigantic electrical generating plants, or else will be obliged to do that which they will not like to do—go back to the use of coal.

## MIDLAND PACIFIC

Files a Mortgage for Five Million Dollars.

A mortgage for \$5,000,000 was filed with County Recorder Godchaux last week in San Francisco by the Midland Pacific Railway to guarantee \$5,000,000 worth of twenty-year 5 per cent bonds. The mortgage is made to the Beacon Trust Company, and it covers the company's lands and railway lines, especial mention being made of the line now building between San Luis bay and the Sunset oil district. The mortgage is signed by J. W. Behrendt, president, and by A. Feist, the secretary.

## A STORM BREWING.

Serious Trouble in the Camp of the Mexican Petroleum.

There is a general kick by the stockholders in the Mexican Petroleum company over the way their money has been expended.

A few weeks since a new board of directors was elected, and it was hoped this new board would be able to straighten out the company's tangled affairs and resolve order out of chaos.

That matters are not running as smoothly as they should, and that there is very much dissatisfaction in the ranks of the leading stockholders, is shown by the following letter, written by Hon. J. A. Graves, the senior member of the well-known legal firm of Los Angeles, Graves, O'Melveny & Shankland:

LOS ANGELES, March 20, 1903.

EDITOR PACIFIC OIL REPORTER—

Dear Sir: In a recent issue of your paper you give a review of the affairs of the Mexican Petroleum company, and state that I am one of the directors thereof.

I was elected a director of the company at its January meeting of stockholders. I attended two directors' meetings; was not satisfied with the management of the company or its condition and did not desire to incur either the moral or the financial responsibility of a directorship, and on the 16th of this month, in writing, resigned as such director, and my resignation was accepted on the 18th. On the same day I sold the 41,666 shares of stock which I held in the company at 70 cents per share, about one-third of its cost to me.

Yours very truly,

J. A. GRAVES.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



Oil Tank Wagon.

The above cut is a picture of one of the oil tank wagons used in delivering crude fuel oil in San Francisco. There are about twenty of these wagons now in use, and all are made of about the same style and capacity, holding an average of twenty-five barrels each. One or two of the tank wagons recently made for the Standard Oil company hold thirty barrels. These wagons average three trips daily. The oil used is usually the heavy Kern river oil of about fifteen degrees gravity, and is heated to a temperature of seventy degrees to make it run easily in loading and unloading. The above shows a Standard tank wagon unloading oil by means of a pipe into a tank located in a basement in front of the celebrated "Jules" restaurant, located opposite the office of the PACIFIC OIL REPORTER on Pine street. The picture will be recognized by many Eastern business men who have lunched or dined at this famous business man's resort. The process of emptying the tank wagon takes but a few minutes, and is a great contrast to the old custom of dumping a load of coal on the sidewalk, with its accompaniment of dust and dirt.



# FUEL OIL.

Continued from page 5.

of about 19° gravity, viscosity 35° flash 180°. While this oil is quite heavy, yet it distills particularly freely, and is used to a large extent for refining. Of course the principal product of value is asphalt. Over the balance of the field the gravities run from 24° to 36°, and the bulk of the oil is used for refining. Most of the wells in Ventura county are deep, and drilling is difficult, but the wells have good staying qualities, the oil brings a good price, and the production is generally good, so that this field has been probably the most profitable to operators of any in the State.

FIELD.	GRAVITY.	VISCOSITY.	FLASH.	USE.
Los Angeles.....	15°	250	200° to 250°	Fuel.
Fullerton.....	22° to 37°	Low	150° Down	Fuel & Refn.
Whittier.....	19°	35	180°	Fuel & Refn.
Ventura.....	24° to 36°	Low	Low	Refining.
Summerland.....	15°	250 to 300	200° to 300°	Fuel.
Carreaga.....	22°	.....	.....	Fuel.
Sunset.....	10° to 14°	High	High	Fuel & Asp.
McKittrick.....	18°	50	180°	Fuel.
Kern.....	14° to 15°	250	250°	Fuel & Asp.
Coalinga.....	20°	30	160°	Fuel.
	26°	Low	Low	Refining.
	33°	Low	Low	Gas & C. Eng.

West and a little north of the Ventura district lies the little Summerland field, noted rather for the peculiar conditions under which oil is here found, than for the importance of the production. The wells here are quite shallow and the production small. The oil is heavy and black, averages about 15° gravity, viscosity about 250°, flash point 200° to 300°. It is used almost entirely for fuel.

Almost on the line separating San Luis and Santa Barbara counties, in the hills south of the Santa Maria valley, lies the Carreaga field. The production here is just beginning, but will probably be quite large this year, as a number of fine wells have been completed. The wells are deep and the production good. The oil is about 22° gravity. I cannot state viscosity and flash. It is mostly handled through the old Alcatraz refinery at Gaviota. After the lightest parts are taken off, the oil is shipped for fuel.

Oil has been found at various points in San Luis in small quantity, but not enough anywhere to constitute even a small field. The next nearest center of production is at Sunset in Kern county. Here the old wells, many of which have been producing for years, are small and shallow; the oil is extremely heavy. The newer wells are said to give a lighter oil and more abundant yield, but so far little or no oil has been

shipped, and I know very little of them. The bulk of the oil which has come out runs from 10° to 14° gravity, with high viscosity and flash points. This oil is partly used for fuel, but a good deal goes into the making of asphalt, for which use it is peculiarly suited by reason of its great weight and thickness.

North of Sunset, in fact, adjoining it, lies the Midway field. The wells here are deeper than at Sunset, and the production is claimed to be large. As there is not so far any railroad transportation and no oil has been shipped, this is somewhat in doubt. I know very little as to the oil.

North of the Midway lies McKittrick. The conditions here are much better settled. The wells are of moderate depth, and drilling seems to be fairly easy. The production is generally good. There is a little heavy oil, similar to that of Kern, and the balance is a lighter oil. Gravity about 18°, flash about 180°, viscosity about 50°. This oil is used principally for fuel purposes. In the present state of the market for petroleum products, unless an oil is light enough to yield a notable quantity of gasoline and kerosene, the refiner turns his attention to getting the greatest possible yield of asphalt, seeking therefore the heaviest oil which he can get. I do not doubt that in time these medium oils will be called into a good deal of use for refining purposes.

East of these three districts lies the great Kern field, the largest by far in the State. Here the wells are of middle depth, from 600 to 1000 feet, drilling is fairly easy, and the production is usually large. The oil is about 14½° gravity, the viscosity about 250 and the flash from 200 to 300. There is a little oil of 17° gravity, with viscosity about 150 and flash from 180 to 200. A good deal of this oil is now used for making asphalt. There seems to be a field for this oil in the making of lubricants, but so far it has been but little exploited. A good many have tried their hands at making kerosene from this heavy oil, apparently with but little success.

Northwest of the Kern field, in the hills west of Fresno county, lies the Coalinga field. Differing from the Kern district, the ground here is much broken and there is little similarity between either the wells or the oils. The wells are of all depths and of all degrees of productiveness. The oils range from a 16° oil, similar to that of Kern, to a very peculiar 33° oil. The oils may be divided into three general classes, excluding the 16° oil, of which the production is small. These are, an oil of 20° gravity, known commercially as Ora crude. The viscosity is about 30, flash 150 to 160; this oil is used almost entirely for fuel. Then there is another oil, also black, of 26° gravity, with low viscosity and flash point. This oil yields a fair amount of gasoline and kerosene, with a little asphalt of indifferent quality. It is used entirely for refining, and is produced by but one company. The third oil is the celebrated 33 oil from the Home Oil Co.'s wells. This oil is of a greenish color, and has a very low viscosity and flash. In spite of its large proportion of light products, it is not very suitable for refining, and is largely used

in the running of gas and in gasoline engines, which for this purpose are equipped with what is called a generator, a contrivance for converting the oil into gas. By this means a great deal of irrigation is done in the San Joaquin valley.

Across the hills, in San Benito and Monterey counties, a great deal of prospecting has been done and some oil developed, which is mostly a light product. So far no paying quantities have been struck, partly due to the fact that the work has been done in a very crude and haphazard manner. With more capital and perseverance there seem to be prospects for a good field here.

North of San Benito, in Santa Clara county, there have been for many years a few deep wells, which produce a small amount of very light oils. When these wells are worked at all, the oil is used for refining, as it is of the best quality. Attempts to extend the field here have not met with success. There are now, however, at Sargents station, in the same county, a couple of good wells of 22° oil, and there seems to be some chance here for good territory when further developed.

The northernmost field in the State is in San Mateo county. There are here some old wells, quite deep, with a small production of very high grade oil, from 48 to 52 gravity. Drilling done lately has not so far gained any large amount of this light oil, though it is said that some somewhat heavier oil, 30° or so, has been found in larger quantity.

This covers the producing fields of the State, so far as they can be dealt with so briefly. The point which has often occurred to me, in going over such figures as these, that the part of our producing area which can be counted on for oil fit for refining purposes is very small compared with our total territory, and that unless the northern districts do better than there is at present any reason to expect, it seems probable that the principal market for our oil must always be as fuel. Fortunately for the industry, the market for oil fuel here is peculiarly favorable, and our oil also seems to be peculiarly suited to this use. I do not think that we need fear that restriction of our output to the fuel market will cause any long continued over-production.

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## FLOATING OIL TANK.

The Barkentine Fullerton Loads at Ventura for the First Time.

For the first time since being placed in commission the Union Oil company's barkentine, Fullerton, has arrived in Ventura harbor, and has loaded crude oil for Honolulu, says the Ventura Free Press. Her coming was known to our citizens and to oil men in this section, and when she came in Tuesday afternoon in tow of the tug Rescue, hundreds of interested and curious citizens admired the beautiful and stately vessel as she rode the quiet waters of the channel.

The barkentine anchored in the channel about four hundred feet from the wharf. She draws nineteen feet of water, and, though the depth of water at the wharf is greater than this, it cannot be depended upon, and it would not be safe to tie her to the wharf. It is, therefore, necessary to load the vessel by means of a four-inch hose attached to the oil pipes on the wharf and floated by means of buoys. The Fullerton loaded 1,000 barrels of heavy oil at Olum and the balance of the cargo will be taken here.

The barkentine is the largest wooden vessel ever built on the Pacific Coast, and the Union Oil company is especially proud of this addition to its fleet. Manager Baker, of the San Francisco office, stated to a Free Press representative that the Fullerton was built in California, of California material to carry California products, and was christened by a California girl. She is surely a native daughter.

The Fullerton is a four-masted barkentine, 270 feet long, with a 42.5 beam, a depth of 21 feet, and a displacement of 1,600 tons. The hold is divided into sixteen immense wooden tanks, each of which has a capacity of 1,000 barrels. The cost of her construction was in the neighborhood of \$140,000. Captain McDonald is in command of the vessel. The loading of the vessel was completed Thursday morning, and she was then towed out to sea by the Rescue. The Rescue returned to the wharf, and took the Santa Paula north, while the Sea Rover, which brings the Santa Paula south, proceeded to San Pedro.

Manager Baker states that it was the plan of the company to name all its oil carriers after its oil fields.

## Gone to Mexico.

E. L. Doheny, president of the Mexican Petroleum company, together with his wife and a party of friends, have gone to Tampico, Mexico, to be absent three weeks. Mr. Doheny will make a report upon the work being done on the company's property near Tampico. The party traveled in Mr. Doheny's private car.



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

At least ten different companies or private enterprises will have complete drilling outfits at work in Alaska before June 1. There are three principal oil districts, Cold Bay, Cook's Inlet and Kyak. As all these are weeks from the nearest base of supplies every drilling outfit taken to the field is as complete as possible, and every contingency is provided for. It is estimated that half a million dollars will be expended drilling for oil in Alaska this season. The objective drilling point in Alaska is a secret.

The biggest sale of the season is reported by the San Francisco branch of the R. H. Herron company. Over sixty tons of oil well supplies, including a complete drilling outfit, boiler and engine, fishing tools, casing and in fact everything that could possibly be needed in drilling a deep well, was shipped this week to Seattle, consigned to J. H. Costello, who is the Seattle representative of a wealthy English syndicate which proposes to drill for oil in the vicinity of Cold Bay, Alaska. The sale was on a cash basis, and it is reported the amount of bill was in the neighborhood of \$9,000. From Seattle the outfit will be sent at once to Alaska.

A wealthy Alaskan has been in San Francisco this week on a still hunt for a suitable man to take charge of a big oil prospecting outfit that is now on the way from Pittsburg from the Oil Well Supply company. The outfit weighs over 70 tons, and is as complete as could possibly be furnished. Every tool and appliance known to modern oil well drilling is furnished, along with 5,000 feet of casing. It is proposed to keep on drilling until it has been demonstrated whether oil can be found or not. If it is found the company has the capital to put in a complete tankage and pipe-line system, tank steamers, etc. The money is there, ready to be expended if oil is found.

#### FRESNO.

The Pennsylvania-Coalinga Oil company brought in its second well last week on section 1, township 20 range 14. This well is opposite the second well of the Esperanza on the adjoining section 6. When the well was brought in the oil spurted from a 4½-inch casing clear to the top of the derrick. The owners are to be congratulated, as they have stayed with this well in spite of many accidents. The owners are Eastern people, with officers at Carlisle, Pa.

A gentleman just from the Coalinga field says: "But of all the sights, the Esperanza is the finest. There are two wells, one of which has been flowing since last July, producing 300 barrels a day, and No. 2 has been flowing since January, producing 500 barrels per day. No. 2 flows with considerable noise and force as the gas comes up, bringing the black, shiny oil with force and noise. Both wells flow into the same tank, as they are but a short distance apart. The owners ship out not over 3,000 barrels a week, and sometimes not much more than half that amount. Were the wells taxed to their limit, it would be an immense amount of oil they would produce. Those wells are not the kind that need a gold sealed certificate to show that one has an oil well. They do not need any trimmings to make them valuable. I saw six wells at Oil City being pumped by one pumping jack, which was run by one gas engine. They did not seem to

be pumping at a very rapid stroke, but were hitting as regular and even a stroke as can be made by machinery." The same authority also says that the Main State is flowing, with oil spurting out all around everywhere. The Home and Blue Goose, great properties, are still at work, giving forth immense quantities of oil.

#### KERN

Last Friday the California-Sedalia Oil company's well No. 5 at Sunset, was perforated and commenced flowing.

Word has been received from the Arcata Oil company that a good coarse oil sand has been struck in the well at Midway. The well is now down 1,480 feet.

The Four Oil company, not one of the largest companies in the river field, but one of the best dividend-payers, paid its regular monthly dividend last week. The disbursement was one cent per share, amounting to \$3,000.

The McKittrick company is putting up a rig for well No. 6, and will commence drilling as soon as the machinery is installed. Two of its pumps are in steady operation, and about 300 barrels of oil is daily poured into the tanks. The company has regular contract and is shipping out considerable oil.

The Chanslor-Canfield Midway Oil company has commenced a suit against the Sioux Oil company to forfeit a lease for the northeast quarter of section 8, township 31 south, range 23 east, on the ground that the lease has been violated. The lease was made to William L. Bruce and assigned to the defendant corporation.

The Menona Oil company has filed articles of incorporation in the county clerk's office. The principal place of business is San Francisco. Directors: J. W. Anderson, W. W. Allen, Jr., M. Burns, San Francisco; Charles E. Benson, Midway; Charles O. Huber, Oakland. Capital stock, \$500,000, one-dollar shares; actually subscribed, \$5.

John M. Wright, president of the Peerless Oil company, has leased several sections of oil land in the country west of McKittrick, near the border of San Luis Obispo county from the Summit and Bonanza Oil companies. This is a territory that has been but little explored and is entirely undeveloped, but has indications of oil sufficient to induce Mr. Wright to invest.

C. J. Lindgren completed his work last week on another big reservoir for the Peerless Oil company on its holdings in the Kern River field, the capacity of which is 65,000 barrels. Besides this new reservoir, the company has three that have been providing storage for an immense quantity of oil. Excavation for reservoir No. 5, whose capacity will be 100,000 barrels, is now in progress on the same grounds.

Thomas O. Turner, general manager of the Eastern Consolidated Oil company, located at Kern River, states that his company will begin work at once on its refinery to be erected on section 12. P. Raymond Gray, engineer for the company, is laying off the site and work will then commence at once. The refinery will have a capacity of 1,000 barrels a day and five stills of 200 barrels each. The company has secured eighty acres for the buildings to be erected.

According to the instruments placed of record another operator in the Kern

river oil field has invested in property at Sunset, not strictly within the bounds as established at the present time, but what may be at some future day included in the southwestern oil field. The transfer referred to is a deed from Wm. H. Greene to John A. Bunting, president of the San Joaquin Oil and Development company, conveying to the latter a three-fourths interest in and to a quarter section in 14-10-23. The tract referred to is to the southeast of the center of development at Sunset.

The Southern Pacific has greatly improved its facilities for hauling oil at Olig, the terminus of the McKittrick branch road. The main track has been extended a distance of about 600 feet, and at the loading rack cars can now be loaded at either side. In order to handle the oil from its wells a pipe-line one and one-half miles long now delivers the product at the station. The company is also making extensive preparations for the development of its holdings in that portion of the field. Lumber is now on the ground for five new rigs, and, as soon as these are completed, drilling operations will be commenced. The company's tanks at this point—four with a capacity of 55,000 barrels each—are almost full to the brim with the product of the McKittrick wells.

There is renewed activity in the Kern river field, due to the increased demand for oil. The Vanderlip, on 25-27-28, has just made a contract with the Standard for 50,000 barrels. The company has two wells pumping. The Mecca, which has four wells, is putting them in pumping order and preparing to market their product. The Vesta on 31 is putting up a rig for its No. 7, and the Associated is putting in machinery to pump the three wells on the Sycamore, which were dismantled some months since. The Monte Cristo is pumping its fiftieth well, just completed. No new wells are drilling on this lease, but the Peerless has started four rigs along its north line. And the Sovereign and Sterling are each making ready to drill a new well. The Perseus has one of its wells pumping and it is doing from fifty to sixty barrels. A new rig is up for well No. 4.

A large amount of work is in progress in the Sunset district, where new rigs are going up on all sides. The number of new wells is large and the product of the district is being rapidly increased. Three new rigs are being put up on the Alameda property; three on the Fulton,

now owned by President John M. Wright of the Peerless and one on the Croesus. On the New Richmond property on section 25 a number of new buildings are being erected and a new rig is about to be put in. The well now just being drilled by Messrs. Aubrey & Dolan on section 31 is down 400 feet, and is drilling with a 12-inch drive pipe. The Arcata's well is now in what appears to be the clay overcropping the stratum of oil. The Chanslor-Canfield company has extended its 2-inch pipe-line to the Croesus well on section 25, and will extend it further southwest when desired. Messrs. Beard & Stevenson have just connected their property with the Jewett & Blodgett pipe-line preparatory to shipping. The Altoona Midway well in the Midway district, owned by Dr. Hoy and his associates, has been started up and is doing very well. Hon. C. A. Barlow, who has just come in from Midway, reports that while he was there the well pumped a barrel a minute. The Charter Oil company, on 13, has succeeded in getting the tools out of its well that were lost last June, and will resume operations at once. O. S. Hickey took the contract some time ago to clean out this well, and last Saturday the lost tools were fished out. The well adjoins the property of the Queen Oil company.

#### LOS ANGELES.

An exceptionally good producer has just been brought in on one of the properties in the east end of the local Los Angeles field, controlled by Easton, Eldridge & Co.

Whittier-Fillmore Oil company has been pumping their first well since Sunday says the Whittier News. It has averaged so far 125 barrels a day. The hole is 2,300 feet deep, water shut off and all casing out but one string of 5½. This well has had eighteen months' work, daylight, on it, and the company stuck together, paid assessments, and looked pleasant. Now it looks different; the tanks are all full so that pumping will have to cease for a time. The hole was finished by Mr. Plotts' method of shutting off water. This well develops a big strip of hitherto unproved oil territory in this field, and will doubtless prove a stimulus to local companies.

#### MEXICO.

There is great interest in the discovery of oil at the Aragon baths, near Mexico city, Mex., where oil is flowing, mingled with water. Borings will be continued



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100 feet deeper in the hope of striking the principal deposit of oil. There is some excitement among the owners of shares in oil companies which have bought extensive tracts near Lake Texcoco, as it is now evident that a substratum of oil lies under the valley of Mexico and close to the city of Mexico. Oil indications have been found in the southwestern part of the valley beyond the suburb Tacubaya. Should oil be struck in commercial quantities the Mexican fuel question will be solved.

#### CHANDLER

It is reported that the Brea Canyon Oil company is figuring on installing a large electric generating plant, to be run with the natural gas from the wells, the electricity to be utilized by the Edison Electric company. Another report is that the Brea Canyon people are investigating the feasibility of putting a pipeline through Fullerton and Anaheim for the use of natural gas for lighting and heating purposes in both towns.

#### SAN BENITO.

Frank Plougher has accepted a position as head driller for the Ladd Oil company now operating in the Emmett section.

The Ashurst Oil company, now operating in the Vallecitos, is doing extensive prospecting in that district, having at the present time two rigs at work. The company has leased the land and rigs of the Hamilton Oil company, and is getting ready to commence operations on these holdings. The company will move one of the rigs from its present site about fifty feet to the north where it will sink a well and expect to strike oil at no great depth. The prospects at this point are very promising.

The San Benito County Oil company sold its drilling rig, tools, etc. last week and is closing up its affairs. The drilling rig sold for \$2,500 and the amount realized from other sundry articles, after all the expenses were paid, swelled the net amount to \$3,280. This amount was divided pro rata among the stockholders who realized \$1.64 per 100 shares. The number of shares outstanding was 200,000. The company has an interest in some second hand casing from the sale of which it expects to realize something later on when another dividend will be declared.

W. H. Hennage, superintendent for Graham & Kellerman of Los Angeles, the capitalists who recently acquired the De Alvarez oil property in the Bitterwater field, was a caller at this office this week. He is authority for the statement that drilling will be under way by the first of April—just as soon as the machinery can be put in place. One carload had arrived at the time of the interview and two delayed cars were expected immediately. Mr. Hennage says a boarding house for the workmen is under way and a two mile pipe-line is being constructed for the conveyance of pure water to the camp. Our merchants already begin to feel the benefit, as witness the wagon-loads of supplies sent from one of them to the camp Tuesday. —King City Rustler.

#### SAN BERNARDINO.

The search for petroleum near Victor, this county, has been persistently kept up, notwithstanding many discouragements. In one well, now down 775 feet, the drill has entered as good oil sand as one could wish to see. The stockholders are feeling pretty good over this find, and will diligently endeavor to find out how deep the oil sand is.

#### SAN DIEGO.

Having secured from the San Diego Land and Town company a twenty-year lease of lands in Chula Vista, the Chula Vista Oil company announces that drilling for oil will be commenced immediately.

The old holes will be rimmed out and made deeper. The drilling will proceed to a depth of 1,000 feet.

#### SAN LUIS OBISPO.

Many persons continue to locate claims in the Cuyama district west of Sunset, soon to be opened by the Midland Pacific. Within the last few weeks about a hundred claims are said to have been located in this district.

#### SAN MATEO.

The Paxton continues to make good progress.

The Guibersen well is in difficulty over a lost string of tools, and the fishing job continues.

It is hoped that by April 1 the weather will have changed, and the roads will be in such condition that heavy teaming can be resumed.

The Wisconsin will put down a string of 5-inch when it can drive the present string no further, and expects then to have no difficulty in shutting off the water. Considerable oil is constantly flowing from the well.

The condition of the roads is such that it is yet impossible to haul supplies to the wells in the Half Moon Bay district, or to haul any oil out to the refinery at Half Moon Bay. As a consequence the rigs that need supplies have been forced to shut down, as has also the refinery.

#### SANTA BARBARA.

The Casmalia Oil company has struck a flow of liquid asphalt.

The Pinal Oil company is down 1,400 feet in well No. 2, with indications of oil.

The Lompoc company's first well is expected to come in at almost any time.

Four wells are in process of development just outside the Lompoc company's line.

The Western Oil company has acquired holdings near the Lompoc well, and has already commenced sinking a well.

The capacity of the tankage at the Columbian refinery is being increased so as to accommodate the oil coming to them from their Newhall wells. Pending this work, the stills are just down, but operations will be resumed April 1.

It is rumored another refinery will shortly be started in Summerland to handle the local output. The California Liquid Asphalt company are running to their full capacity. The Columbian, of Carpinteria, was closed last week, owing to putting up additional tankage.

It is proposed down at Lompoc to erect large storage tanks near the beach and load the oil into vessels by means of large rubber hose, which will remove the necessity of building a wharf. From the wells to the sea there is a gradual slope so that the oil may be piped to the coast without the necessity of pumping.

The Lompoc company's oil well is now down 1,300 feet, with drilling in progress night and day. Oil seepages are frequently encountered, and the gas pressure is noticeable. The company expects to reach oil within the next few days, the formation being the same as that found by the Union well just before oil was struck.

A party of oil men, headed by A. H. McKay, formerly the manager of the Western Union company, now engaged in the Careaga field, are preparing to drill on the Goodchild property, recently purchased by them. The Goodchild lands immediately adjoin the premises upon which the Lompoc company is prospecting.

At Summerland the Crescent company has had trouble with their contractor who dropped his tools in the well at about 900 feet depth, and allowed them to be caved on, and then attempted to abandon the well, keeping the money paid him by the company, and leaving

his men unpaid. The company brought suit against this contractor for the loss of tools and materials in the well and for damages. When the matter is straightened out work will be resumed on Ortega hill.

At Carpinteria the contractor, sinking for the Crescent company, had reached a depth of 1,300 feet, when an accident occurred from the loss of tools in the well, and in this case the contractor brought suit for the retained payment, claiming that he had done all possible, and that the accident was unavoidable. The case was tried, and the judge gave a compromise judgment, deciding that the company must pay part of the money claimed, amounting to some \$800. The company, however, have given bonds and have appealed.

In regard to the output of the Western Union wells Superintendent McKay says: "We believe the wells are producing even more than before, but there is no one who knows how much or how little the wells are capable of producing. We do not know ourselves, because they have never been pumped to their full capacity. We are now pumping four wells less than we did some time ago, and are getting the same production from these as we did from all before. We are pumping from ten wells as much oil as we can send through the pipe-line to Alcatraz landing.

The first well put down by the Union company from which is being pumped over 300 barrels a day, has been run only 150 feet into the oil sands. It is the general belief of those deemed qualified to state that the total depth of the oil sands in that particular part of the district is not less than 500 feet. This is accepted as an indication that a much larger quantity of oil than is now being pumped will be developed as fast as the sands are penetrated. The Union company proposes to sink the well to as great a depth as practicable, in order that the producing capacity may be determined.

H. F. Rudisell, of the Union Oil company says in relation to the new Lompoc field that he expects to have four wells completed within six months but until that time there will be nothing done toward the construction of a pipe-line to the sea. The company is not giving out any information as to the location of the pipe-line. The shortest route is about ten miles. The Lompoc field will have the company's preference in the development work, for every desirable condition is found there, including cheapness of drilling and easy and cheap transportation. The company now has a rig at work on the Haslam place, about a mile east of well No. 1, and will have three rigs going before many weeks.

Additional reports from the Lompoc Oil field, brought by prominent members of the Lompoc colony, are to the effect that the earlier statements of the flow of oil were not exaggerated. If the truth is told the well of the Union company is without a rival in the West, when one includes in the estimate the quality of oil and the quantity produced. A prominent Lompoc citizen says that in his estimation the well will produce a thousand barrels per day. Whenever the cap is removed, the oil flows over the casing, sometimes to the top of the derrick, which is seventy-two feet high. The gas pressure was reached by the pumping of the well when it first came in, and when 30,000 barrels had been pumped, filling all of the available tankage, the well was ready to gush.

#### SANTA CLARA.

The Orchard Crude have their well near Los Gatos on the pump. It is said to be producing about twenty barrels a day of good oil. There is considerable oil in the tanks.

#### VENTURA.

The Modelo company at Piru have just finished a rig and have started on a new one, number 29.

The Weldon Oil company's well on the Hartman ranch back of Ventura, is down 500 feet. Indications for an oil strike are far better than they have been at any time since the company began operations in this county. Mr. Sarles, who is superintending the work is greatly encouraged over the outlook.

#### WYOMING.

The Bettys Oil company have had another fishing job. They are now about 350 feet deep.

Superintendent A. A. Perkins, of the Michigan-Wyoming Oil company reports everything moving nicely at their well.

J. J. Hardin and J. H. Price of the Jager Oil company, Robert Ellis of the Atlantic & Pacific and L. E. Nebergall are in New York city closing land deals and forming companies. They are all expected here by the first of April when they will commence active development work in the oil fields.

The Idaho-Wyoming Oil company at Fossil are still waiting on casing. They have the hole down 1,000 feet and cased all but about twenty feet of the way. They expect a strike in the next few hundred feet and do not want to drill without casing the hole. Many bad delays are being caused by poor service on the railway.

The Atlantic and Pacific Oil company are busy building derricks for the numerous drilling rigs which are being shipped by them from California. This company expect to be operating from fifteen to twenty rigs in the Spring Valley field by the first of June where they brought in a well last fall which is considered the best strike yet made in the Uinta field.

Reliable reports state that the Atlantic & Pacific company have filled all available tankage at the "Ellis" well and as it is necessary to frequently pump the well to keep it alive the oil is allowed to run to waste. It is understood this company have a 20,000 barrel tank on the road to be placed at this well and that a pipe-line will be laid from it to Spring Valley station as soon as the snow goes.

The Evanston Oil Exchange report a growing business that is likely to keep all concerned very busy in the near future. They are having a pamphlet published concerning the oil fields the first edition of which is to be 10,000. These will be distributed through the Eastern cities for the purpose of acquainting capitalists with the Uinta oil fields. The Exchange will cheerfully answer all inquiries regarding the oil fields.

Mr. D. F. Craig, of the Craig & Bartlett Oil company was in Evanston Tuesday enroute to Boulder, Colo. They have just finished a three weeks' fishing job which makes the second bad one they have had the past winter to say nothing of the numerous crooked holes. They are now down 1,400 feet and report everything in good shape for rapid progress now. They expect to encounter the oil sands at 1,700 feet which from a scientific standpoint will be identical with the big strike at the "Ellis" well on section 22. This company got a good showing at 1,100 feet but were not satisfied with this and went deeper in search of the main deposits.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



**COALINGA LETTER.**

COALINGA, CAL., MARCH 24, '03.

The Pennsylvania-Coalinga Oil company on section 1, 20-14 struck by far the largest flowing well in this field on the 19th inst. The flow is conservatively estimated at from 800 to 900 barrels per day. The casing has been capped to check the flow of oil until provisions are made for its storage. The Section 7 company's well, which was begun about a month ago, is down 450 feet.

U. M. Thomas, of Fresno, secretary of the St. Paul Oil company, has purchased the SW $\frac{1}{4}$ , N $\frac{1}{2}$  of SW $\frac{1}{4}$  of SE $\frac{1}{4}$  of section 6, 21-15.

Several carloads of horses, wagons and tools arrived Sunday for the Southern Pacific railroad, to begin work at once constructing two 50,000 barrel tanks at Ora station, three miles east of Coalinga, the present terminus of all the pipe-lines in the field.

Three new companies have recently come into the field, all of which have begun operations. The Caledonian Oil company, located on section 26, 20-14, are down over 550 feet. The Plymouth Rock Consolidated Oil & Developing company, on section 32, 19-15, are rigged up ready for work as soon as a few tools arrive. The Nathan on section 7, 20-15, have their derrick up. The

greater activity of the field is toward the southwest, terminating with the Caledonian Oil company, three miles from the town. A great deal of interest is manifested in this end of the field and their success will open up a large territory.

R. J. King, of Hanford, Cal., formerly manager of the El Capitan and one of the pioneers in the field, has purchased the N $\frac{1}{2}$  of NW $\frac{1}{4}$ , E $\frac{1}{2}$  of NE $\frac{1}{4}$  of section 30, 20-15.

The El Zuma Oil company finished well No 2 last week, and will begin on their No. 3 well within a few days. McClurg & Claypoole's first well was finished last week. The rig for No. 2 is ready for work. Both of these companies are on section 31, 19-15.

The Stockholders' Oil company, that sub-leased a portion of the Independence Oil company's property on section 28, have just completed their first well.

Work on well No. 3 was begun this week by the Hanford Oil company on section 28.

For the past few weeks surveyors have been at work on the prospective pipe-line of the Pacific Coast Oil company. The two 35,000-barrel tanks, one of which is completed, and the other under construction, are located on section 21, 19-15, near the northeast corner. Five acres have been pro-

cured from the California Oil Fields, Limited, for that purpose. Quite a supply of pipe and other material has already been received for the pipe-line. The officials of the company state that the exact course of the line has not yet been determined, but it is very probable that the laying of the line will begin within a week or at the most two weeks.

R. C. Baker, on section 23, 20-14, completed his first well, just north of the St. Paul Oil company's well.

The Coast Range Water company and the Coalinga Water company have been consolidated under the name of the Coalinga Consolidated Water company. Their lines have been extended into considerable new territory so that now they have nearly twelve miles of water lines, six 12,000-barrel tanks, and pumping from six wells. The company has acquired the right of way to extend their line into section 28.

E. L. & W. S. Herring have been awarded the contract for putting down a well for the Fresno-San Francisco Oil company, on section 36, 19-14, and will begin work immediately after completing the well for the Caledonian Oil company.

Dallas & Shaffrath have just finished a map of the Coalinga field, showing all pumping wells, work-

ing rigs, abandoned wells; derricks, water and pipe-lines, tanks, roads, location of property holders and lessees.

The Grant Oil company has temporarily suspended operations.

**Oil for Roads.**

In Alameda county Supervisor F. C. Horner, who conducted a number of experiments regarding the use of oil on public roads last year, has arranged to have thirty miles of road in the locality of Pleasanton thoroughly treated with oil. A plant for heating the oil has been erected near that place, and a tank capable of holding four cars of oil has been erected for storage purposes. It is claimed by Horner that the experiments which he conducted last year convinced him that the use of oil was much cheaper than water for road sprinkling. In the tank is a larger system of coils, which heats the oil to the temperature required and from which it is conducted into the wagons. It is probable that only one-half of the road will be oiled at a time, so that there will be no necessity of traveling over the oiled portion until it is thoroughly dry. Failure to wait until the roads were in proper condition after oiling created havoc last year and Mr. Horner is determined that it shall not occur again.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



### Los Angeles Stocks.

A larger volume of business was registered on the floor of the Los Angeles Stock exchange last week than in any similar period for the past two months. The trading was fairly distributed among the old-time favorites, although there were a few exceptions wherein stocks came to the front temporarily. Prices were good and if anything slightly better than the week before. At the close of the market Saturday the general list held firm and the undertone of the market appeared strong with every indication of future steadiness.

Central found a market early in the week at 96 cents, declining later to 95½ cents, with a minimum price of 95 cents. Columbia figured in the trading at 20 to 20½ cents. A stationary price of 54 cents was maintained throughout the week by Fullerton oil at which figure considerable of the stock changed hands. Globe sold at 15 to 15½ cents in small quantities. There were a few transactions in Reed Crude at 31½ cents which is a fractional advance over recent prices. Union oil was the only listed stock that really suffered any material decline. This security was sold in quantity and at the close of the market on Saturday reached low water mark of \$90. Lack of support seems the only logical reason for this movement.

Among the unlisted oils trading was somewhat restricted.

Mining stocks came in for a good share of business, notably the Consolidated Mines and Hudson Gold.

There was some activity in bank paper while the miscellaneous list was almost entirely neglected.

### City Pipe-Line.

W. T. Porter, general manager of the Associated Oil company, has petitioned the board of supervisors for permission to lay an eight-inch pipe-line for the transmission of oil. The route chosen is from a point on Sixteenth street, easterly on Sixteenth to Illinois, to El Dorado, to the seawall, a distance of 3,700 feet; together with all branches and connections necessary for the use of such pipe-line.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, March 24:

APOLLO.		
1,000 at	39.....	\$ 390 00
CARIBOU.		
1,000 at	90.....	900 00
CHICAGO CRUDE.		
400 at	20.....	80 00
FAUNA.		
1,000 at	15.....	140 00
HANFORD.		
12 at 120 00.....		1,440 00
HOME OIL.		
300 at 2 60.....		780 00
100 at 2 65.....		265 00
250 at 2 70.....		675 00
100 at 2 75.....		275 00
100 at 2 80 (S 10).....		280 00
100 at 2 80.....		280 00
150 at 2 85.....		427 50
IMPERIAL.		
40 at 19 00.....		760 00
INDEPENDENCE.		
11,000 at 13.....		1,430 00
2,700 at 13 (B 10).....		351 00
2,400 at 12.....		288 00
1,000 at 14 (B 30).....		140 00
JUNCTION.		
3,000 at .08.....		240 00
KERN.		
200 at 4 80.....		960 00
LION.		
800 at .08 (C).....		64 00
2,300 at .08.....		184 00

### MONTE CRISTO.

Sold at	1 35 S 90.....	675 00
Bought at	1 35.....	135 00

### OCCIDENTAL OIL.

100 at	18.....	54 00
200 at	18.....	38 00

### OIL CITY PETROLEUM

3,000 at	31.....	1,023 00
5,000 at	32.....	1,776 00
3,000 at	34 (S 10).....	930 00
2,000 at	33 (B 30).....	660 00

### PEERLESS.

115 at 15 50.....		4,882 50
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### REED CRUDE.

2,000 at	31.....	620 00
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### S. F. & MCKITTRICK OIL.

500 at	2 50.....	500 00
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### SENATOR.

100 at	65.....	65 00
100 at	70.....	70 00

### SHAMROCK.

200 at	20.....	40 00
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### SOVEREIGN.

32 at	40.....	12 80
320 at	41.....	123 00
1,400 at	42.....	508 00
500 at	43.....	215 00
1,000 at	44.....	440 00

### STERLING.

350 at	3 25.....	1,137 50
450 at	3 10.....	1,395 00
200 at	3 05.....	610 00
433 at	3 15.....	1,370 55
100 at	3 20.....	320 00
100 at	3 00 (S 90).....	300 00
100 at	3 15 (B 10).....	315 00
100 at	3 15 (S 90).....	315 00

### SUPERIOR.

1,000 at	09 (B 30).....	90 00
1,000 at	08.....	96 00

### THIRTY-THREE.

50 at	8 75.....	437 50
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### TWENTY-EIGHT.

250 at	3 60 (B 10).....	900 00
200 at	3 55.....	710 00
300 at	3 60.....	1,080 00
100 at	3 40.....	340 00
100 at	3 50 (B 5).....	350 00
150 at	3 50.....	525 00
200 at	3 45 (S 60).....	690 00
200 at	3 75.....	750 00
100 at	3 70.....	370 00
100 at	3 65.....	365 00

54,832 Shares Amount \$35,583.35

### CHUTES CO.

50 at	8 50.....	\$ 425 00
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### EQUITABLE (POOL) GAS.

150 at	4 50.....	665 00
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### NORTHERN CAL. POWER CO.

50 at	9 75.....	487 50
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250 Shares Amount \$1,577.50

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.		Bid.	Asked.
Alma.....		1.40	
Apollo.....		.38	.39
Aztec.....			.87½
Bear Flag.....			.10
California Standard.....			.16
Caribou.....		.85	.95
Central Point Con.....		.70	.80
Chicago Crude.....		.15	.25
Clairmont.....		.21	
Fauna.....		.13	
Four.....		.67	
Hanford.....		117 00	122 00
Home.....		2.70	2.80
Imperial.....		18.00	
Independence.....		.12	.13
Junction.....		.08	.09
Kern.....		4.80	4.90
Kern River.....			14.50
Lion.....		.08	.09
Monarch of Arizona.....		.27	.30
Monte Cristo.....		1.30	1.37½
Occidental of West Va.....		.18	.20
Oil City Petroleum.....		.31	.32
Peerless.....			16.00
Pittsburg.....		.30	
Reed Crude.....		.31	.32
S. F. & McKittrick.....		2.50	2.75
San Joaquin O. & D.....			7.12½
Senator.....		.70	
Sovereign.....		.41	.42
Sterling.....		3.15	3.20
Superior.....		.08	.10
Thirty-three.....		8.61½	
Toltec.....		.15	.20
Twenty-eight.....		3.65	3.70
United Petroleum.....			118.00
Union.....			.63
West Shore.....		3.00	
Wolverine.....			.57

### Stock, Bond and Investment Syndicate

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## GOLD!

Always at Par.

### Hudson Gold Mining Co.

Owens rich gold properties in Arizona; active work now in progress, to continue which stock is being sold at

## 10 CENTS A SHARE

Par Value \$1.00  
Full Paid,  
Absolutely  
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When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

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San Francisco, Cal.  
Telephone, South 802  
Works: Rodeo, Contra Costa Co., Cal.

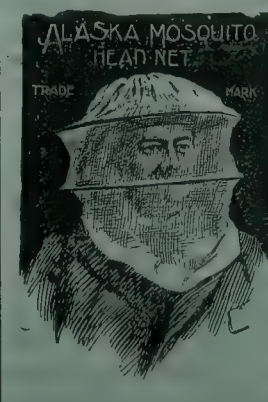
### NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 2d, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (\$10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

## Alaska Mosquito Head Net

A Perfect Protection Against Insect Pests



Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

Invented for and in general use in mosquito-infested Alaska.

Folds up compactly and goes easily into the pocket.

Made of specially prepared galvanized steel wire and the finest and strongest netting.

Invaluable for hunters, campers and travelers.

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### Made in Two Varieties.

No. 1. Made of finest netting, sure protection against mosquitos. 50 cents.  
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If your dealer does not handle them, write direct to the manufacturer and we will mail on receipt of price.

## ALASKA MOSQUITO HEAD NET CO

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## IRRIGATION BY PUMPING.

### This is a Favorite Method in the Southern San Joaquin Valley.

There Are at the Present Time Over One Thousand Irrigating Pumping Plants on the Pacific Coast and the Number is Rapidly Increasing.

he discovery of oil in the San Joaquin valley and the resulting abundance of cheap fuel for the first time awakened a general interest in the subject of pump irrigation, and about a year ago the business men of Delano began to seriously consider making an experiment on that line. Various propositions were made says the Bakersfield Echo and finally Ben Thomas offered to give it a thorough test if other business men of the town would contribute \$200 toward the expense. The amount asked for was raised before sundown, and Mr. Thomas promptly began work.

He first purchased a 12 horse-power gasoline engine, and a No. 4 centrifugal pump, but found that the engine was too light for the pump at the depth from which he was obliged to raise the water, and has since replaced it with an 18 horse-power engine. He pumps from two wells, one being 130 feet deep, and the other 54 feet. The water stands in these wells at a depth of 29 feet and when the pump is running full it lowers to a depth of 45 feet. He uses eighteen gallons of distillate in twelve hours and the amount of water raised is variously estimated at 325 to 400 gallons per minute. By actual experiment this stream will irrigate three acres in twelve hours. The price paid for distillate, however, has varied somewhat but has always been unnecessarily high because it was purchased in small quantities. Arrangements are about completed now, however, for handling it in carload lots and the cost at Delano, as the market now stands, will be 4 cents per gallon.

Immediately following the starting of the Thomas pump, others began putting in similar plants and there are now in operation twelve plants in northern Kern county or within a few miles of the line in Tulare county. A list of these pumps with the available data is given below:

R. W. Lockridge—In Delano, 6 horse-power gasoline, No. 3 pump, well —, feet, lift of water — feet, one and one-half acres in alfalfa, trees and house-grounds.

Ben Thomas—Adjoins town, 18 horse-power engine, No. 4 pump, wells 130 and 54 feet, lift of water 45 feet, 20 acres alfalfa, 7½ barley, 2½ fruit trees and house grounds.

C. W. Turner—Two miles north and one and one-half west, 12 horse-power engine, No. 3 pump, well 75 feet deep, lift of water 39 feet, flows ten-inch stream over six inches discharge pipe.

N. L. Nichols—12 horse-power steam engine, No. 4 pump, 20 acres vineyard.

A. D. McKean—25 horse-power steam engine, No. 6 pump. Just installed, well not completed.

Frank Schlitz—25 horse-power engine, No. 5 pump, wells 77 and 170 feet deep, lift of water 67 feet, 42 acres of alfalfa, 1 acre garden, 5 acres corn.

L. Bearce—25 horse-power engine, No. 6 pump, wells 106 and 90 feet deep, water stands at 27 feet, lowers to 42½ feet, throws stream six inches over 11-inch vertical discharge pipe; irrigates three and two-thirds acres in 12 hours; 22 acres of alfalfa, may plant corn or other crops.

A. H. DeWitt—Horse-power, 2 or 4-horse, Davis chain pump, artesian well, ten feet lift, about 80 acres in grain and alfalfa.

P. J. S. Montgomery—Same power and pump, artesian well, 10 feet lift, 90 or 70 acres of alfalfa.

W. Y. Horner—18 horse-power engine, No. 6 pump, artesian well, 14 feet lift, irrigates six to seven acres in 12 hours; 35 acres alfalfa, 30 acres barley, 40 acres corn, etc.

James Wells—18 horse-power engine, No. 5 pump, 20 acres old alfalfa, 20 acres new alfalfa.

C. W. Brown—12 horse-power engine, No. 6 pump, seven to nine feet lift, 85 or 90 acres alfalfa, 10 acres trees, etc.

Few of the owners have made any estimate of the amount of fuel used per acre irrigated. It is found, however, from tests made that an 18 horse-power engine uses 18 gallons of distillate in twelve hours. A 20 horse power engine uses 25 gallons in the same time. The amount of land irrigated runs from six to seven acres with Mr. Horner, who pumps his water about 14 feet, to two and one-half to three acres with Mr. Thomas, who pumps 45 feet. Theoretically, the variation should be directly as the depth from which the water is raised. It probably is so, the apparent discrepancy in this case being due to the fact that the land experimented on by Mr. Horner is con-

siderably sandier than the land Mr. Thomas was irrigating.

As will be seen these pumps are scattered over a considerable extent of country, it being thirty-seven and one half miles between the most distant. The conditions however, are similar in all places.

What is true of the southern portion of the San Joaquin valley is true also of the entire valley region, wherever water is found at a not too great depth. But this is rare; as a rule water is easily obtainable, not only in the San Joaquin valley, but everywhere.

There are probably now in operation at least 1,000 pumping plants for irrigation on the Pacific Coast. A year ago there were not 100. All or most of these use distillate and the number is rapidly increasing.

Experts returned from the oil regions in the State of Oaxaca, Mexico, report that there are many signs of the presence of oil in the Pochutla district. Oil seepings are abundant for forty miles along the coast and twelve miles inland. Borings will be continued after the coming rainy season.

### JAPAN OIL MEN

Visiting the Oil Fields of California.

President Yamada and Secretary K. Koda, of the Hoden Oil company of Japan, are in Bakersfield looking over the Kern county oil fields for a few days, together with their mechanical engineer, Mr. Kitano. Yamada, aside from being president of one of the largest oil companies in Japan, comes here as special envoy from his home province of Echigo.

The purpose of his visit is to study the commercial features and methods of this country. The party spent three days in San Francisco, and this is the first stop since leaving there. They will leave in a couple of days and will pass through Los Angeles, Beaumont, New Orleans, Pittsburg, Chicago, New York, England, France, Germany, Russia and Spain before going home.

President Yamada has with him a letter from General Manager Copeman of the Standard Oil company in Japan. He states that that company controls the oil market in his market.

### Important Purchase.

The Oil Well Supply company of Pittsburg, which is one of the biggest concerns of its kind in the United States, and has fifty-four branch houses, is reported to have purchased the Star Drilling company's plant at Chanue, Kansas. The coming of the Oil Well Supply company to Kansas is considered a great indication of the growing importance of the field.

Subscribe for the PACIFIC OIL REPORTER.

### A Busted Oil Boom.

One by one the different oil companies which have been organized in Sanger during the past few years have given up the ghost, and if any of the stockholders have realized a fortune from such investments they are not proclaiming it from the rooftops. The last company to wind up its affairs was the Roberts, a meeting of the stockholders having been held in Sanger last Friday night for this purpose. Will Griffin of Madera, secretary of the Roberts Oil company, was present, and presented a financial report showing a balance of several hundred dollars in the treasury, consequently it was decided to declare a dividend of 3-10ths of a cent per share and go out of the oil business as speedily as possible. It appears by the records that the unlucky number "13" cut some ice in this unfortunate oil venture, over \$13,000 having been sunk by this company in a crooked hole. The company was organized on the thirteenth day of the month; thirteen of the original stockholders failed to pay for their stock, and it was disorganized on the thirteenth, so it is not to be wondered at that it proved a fizzle. The thirteen persons who dropped out at the start were lucky indeed, and doubtless appreciate it by this time,—Sanger Herald.

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### Here's a Stock That Needs No Boost

The shares of the Norwegian Consolidated (Gold) Mining company are rapidly going to par by their own volition. You can get in now at 65 cents. In a few weeks you will be unable to get in at any price. Prospectus containing facts for the asking.

C. M. HATCHER & CO., 262 Washington street, Journal Building, Boston, Mass.

## WANTED

Position as superintendent of a thoroughly reliable oil company, by a man 32 years old, married and strictly temperate. Have thirteen years' experience, nine in Pennsylvania and West Virginia and four in California fields. Can furnish A No. 1 references as to character and ability.

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PACIFIC OIL REPORTER  
Box 321, San Francisco

## FOR LEASE

Good oil land; practically proven as far as oil is concerned. High grade oil, 54° Baume. Hurry; no time to be lost. For further information address

DR. A. E. NEUMBISTER  
1103 Main St., Kansas City, Mo.



**LAW SUIT PROMISED.**

The Western Union Draining Newlove Property.

There are rumors that an important suit is pending over oil lands in Northern Santa Barbara county. The story goes that the fight will be between the Careaga or Western Union interests and the Newloves. The Careaga and Newlove ranches join, and the wells of the Western Union company are located on the Careaga property, near the Newlove line. Already these parties have had one action in court over the boundary lines, and now it is said that the Newloves will claim that the Western Union wells, just over the line, are draining the oil from the Newlove property. Efforts to locate the oil deposits on other parts of the Careaga property have not been successful.

Should the dispute get into the courts, it will be a bitter fight, as the property at issue is now valued at hundreds of thousands of dollars.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**Paul W. Prutzman**

113 New Montgomery St.

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TESTS OF PETROLEUM  
ANALYSIS OF ASPHALT &  
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Typewriters**

Sold Within a Few Years.

97 percent of 16 Leading San Francisco Banks Use Smith Premier Typewriters.

The Smith Premier Typewriter is used exclusively by the Telegraph Department and the Sunset Freight Department of the Southern Pacific Railroad Company.

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Heald's Business College uses 32 Smith Premiers.

San Francisco Call uses 23 Smith Premiers.

Oakland Public Schools use 11 Smith Premiers.

Pacific Hardware and Steel Company uses 21 Smith Premiers.

The Viavi Company uses 10 Smith Premiers.

California Wine Association uses 9 Smith Premiers.

The Emporium Company uses 7 Smith Premiers.

Gunnison, Booth & Bartlett use 4 Smith Premiers.

Descriptive Art Catalogue-Book on Touch Typewriting-No Charge

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**L. & M. ALEXANDER & CO.**  
EXCLUSIVE PACIFIC COAST DEALERS,  
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Branch Stores:  
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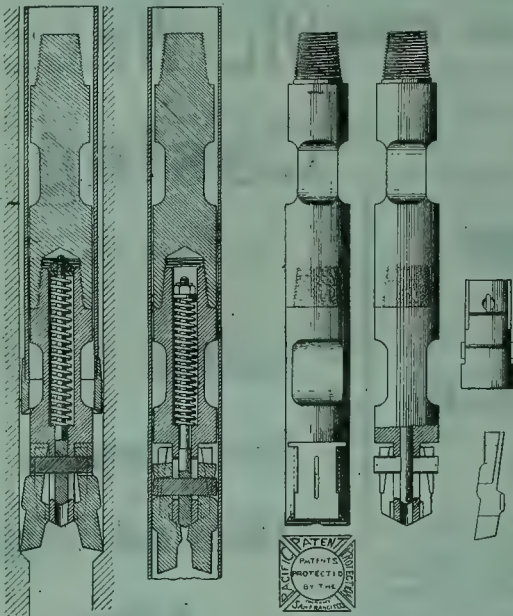
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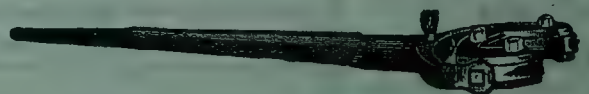
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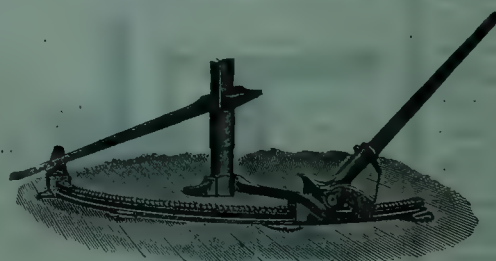
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Vol. 4. No. 22.

SAN FRANCISCO, CAL., SATURDAY, APRIL 4, 1903.

Price 10 Cents.

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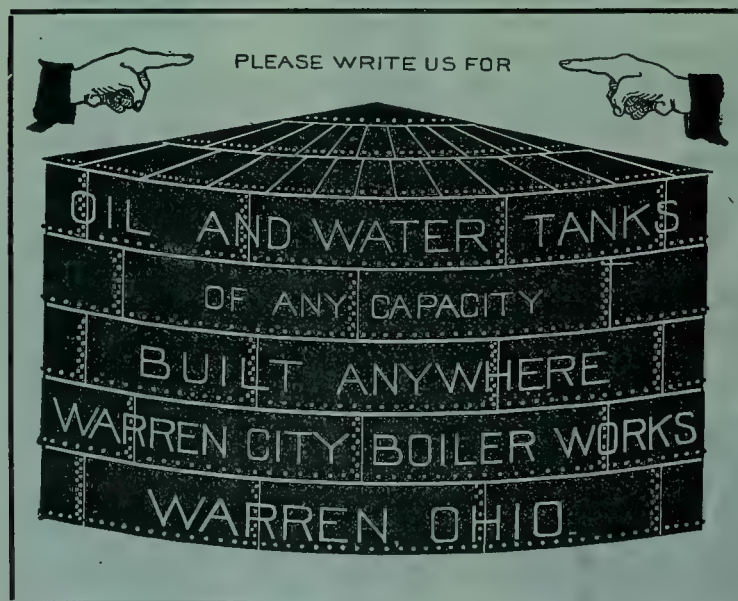
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# PACIFIC OIL REPORTER

VOL. 4. NO. 22.

SAN FRANCISCO, CAL., SATURDAY, APRIL 4, 1903.

PRICE, TEN CENTS.

## ROCK ASPHALT A FAILURE.

**Its Use Has Proved Very Unsatisfactory in Eastern Cities.**

**Opportunities for Laying Two Million Dollars Worth of Refined Asphalt Pavement in San Francisco and Oakland.**

Within a short time the taxpayers of San Francisco will be called upon to vote on the question of issuing bonds to the amount of \$13,150,000 for improvements. The amount is to be divided as follows:

Hospital.....	\$ 500,000
Sewers.....	5,500,000
Schools and sites.....	2,500,000
County Jail, addition to Hall of Justice.....	750,000
Park and Presidio extension..	270,000
Children's playground, North Beach and south of Market street.....	560,000
Repairing streets.....	1,000,000
Telegraph Hill Park.....	460,000
Twin Peaks Park.....	140,000
St. Mary's Square.....	200,000
Mission Park.....	270,000
Public Library and site.....	1,000,000

Total.....\$13,150,000

Attention is called to the fact that of the total amount \$1,000,000 is to be expended in repairing streets.

It is obvious to anyone, particularly to those who for business or pleasure drive on the streets of San Francisco that the work of repairing our streets is absolutely necessary.

An Eastern gentleman recently visiting San Francisco, said, "I am quite familiar with the streets of almost all our Eastern cities and I am compelled to say that no Eastern city can compare with San Francisco in the matter of ill-kept streets. The rock pavement that you use here seems to be the most inferior material that can be used for paving purposes."

The gentleman was right. The bituminous rock streets of San Francisco ARE a disgrace to San Francisco and to those who as contractors are chiefly instrumental in urging the use of bituminous rock, in arguing as to its comparative excellence, and in so manipulating matters that the contracts for laying this paving are kept in the hands of the chosen few.

If \$1,000,000 is to be spent in the attempt to put the streets of San Francisco into decent condition let not the money be wasted in the attempt to repair bituminous rock streets with more bituminous rock. It will be throwing good money after bad. It will

still further enrich the pockets of the bituminous rock men, and will not improve the condition of the city's streets except for a few months.

If the city's streets are to be repaved let it be done with the only pavement that is fit for the purpose, namely, the asphalt pavement made out of asphalt, properly refined from the crude oil of California, properly mixed with the sharp sand necessary for a durable pavement, and properly laid by men skilled in the business of laying pavement.

This city has had enough of bituminous rock, and no one who understands its defects, its lack of wearing qualities, and is familiar with the condition of the streets where it has been laid will ever want to see another block laid with rock asphalt.

The same is true of Oakland.

Anyone familiar with the streets of this otherwise beautiful city knows that the condition of the main thoroughfare is something disgraceful.

It is simply torture to be obliged to ride from Oakland to Berkeley along Telegraph avenue, which is the main artery between these two cities and which should be one of the best paved avenues in California.

It is lined with beautiful mansions. Noble trees and well kept lawns and gardens are on either side; yet all the natural beauties of this avenue, four miles in length, are lost by the discomforts and dangers of a ride along its length. From one end to the other it is a succession of holes and pitfalls, and a driver or bicycle rider must carefully pick his way along at a pace no faster than a walk, for a faster gait would inevitably break a spring or render a wheel a subject for a repair shop.

Telegraph avenue was paved only a few years ago from Oakland four miles out toward Berkeley, but to-day not a block, not a consecutive twenty-five feet of it is without deep holes. It is as bad as the worst bituminous rock street of San Francisco, and that is saying all that need be said to

make anyone acquainted with the fact that the streets of Oakland, at least some of them, are in a condition that cannot be depicted in words.

What can be said of the condition of Telegraph avenue is equally true of other streets such as San Pablo avenue, Franklin and Fourteenth streets. All of these must be repaved, the bituminous rock that has been placed upon them having worn out—no, not worn out, but having proved itself incapable of sustaining any wear at all.

Oakland will soon be compelled to repave these streets, and it is to be hoped that those who have the street work in charge will not allow any specifications to be submitted to street contractors which should provide for bituminous rock pavement. The only pavement fit to be used is refined asphalt pavement.

It costs no more than rock pavement. It is as easily laid, is put down without the necessity of blocking up the street with the heating and grinding machines that can be seen, heard and smelt wherever rock pavement is being laid, and when it is laid it proves durable, clean and satisfactory.

The city of Milwaukee has just witnessed the absolute defeat of the rock pavement contractors. This year very many miles of streets are to be repaved, and as a consequence the bituminous rock men swooped down upon Milwaukee like vultures, and have tried their utmost to induce those in charge of the street department to so word the specifications as to make it possible for the rock pavement men to secure the bulk of the paving contracts. Mayor Rose, of Milwaukee, has taken a great personal interest in the matter of choosing the material with which the streets are to be paved, and sent letters to several large cities where rock pavement had to be used inquiring as to whether or no it had proved satisfactory.

It is impossible in this short space to reproduce all these letters, consequently only a few of these are given and these only in part.

As regards the use of rock asphalt Mobile says it has been used as an experiment and found unsatisfactory. Cincinnati used it and replaced it with Trinidad. Decatur, Ill., has been enjoined from accepting it because it was so poor. Auburn, Ill. advises the city to send a committee there before calling for Kentucky rock. Wabash, Ind., has used it, and says it will not stand heavy traffic. Evansville, Ind., had to tear up a street on which it was laid. St. Louis found it an unsatisfactory

experiment, and Detroit refused to try it. Indianapolis has tried it, but required a guarantee for nine years, and Mobile reports that it is rotting after a short period of use. Fort Wayne, where it was tried extensively, has cut rock asphalt out of its specifications because it was so poor. The work there by the company was unsatisfactory.

The letters are as follows:

MOBILE, ALA.

From the mayor:

We have 17,000 square yards of rock asphalt pavements. It has been in use less than one year. The average price was \$1.80 per square yard. It is not entirely satisfactory. On flat grades where the water does not run off freely and at places showing surface irregularities the pavement has already begun to deteriorate or rot out. On grades as great as 2 per cent it stands better; horses do not slip in wet weather. No other asphalt is used with the rock. Carbonate of lime is mixed. We require a guaranty of maintenance for five years without cost to the city; ten years afterward to be maintained at a fixed price by contract. We look upon it as an experiment.

CINCINNATI, O.

From the chief engineer:

Five thousand square yards laid in 1901. This was the clear rock and was unsatisfactory. No other kind of asphalt mixed with rock. Our experience with rock asphalt is no way satisfactory. Pavement broke up shortly after laid and subsequently replaced with Trinidad pitched lake. We laid a specimen patch in addition to above. Result not favorable. We do not recognize it as a paving material. I understand that the rock is being mixed with other asphalt so as to give a fair pavement. I am not certain that this is the case.

DECATUR, ILL.

From the city engineer:

We have 15,092 square yards; in use five months. It is not satisfactory. Probably not properly mixed and laid. The city has been enjoined from accepting pavement. Injunction has not come up for trial as yet.

AUBURN, ILL.

From the mayor:

We have nearly 4,000 square yards of rock asphalt pavements in use thirty days. It is not satisfactory. It is rotten; breaks and crumbles. Was laid in cold weather, which it is claimed injured it. Those who profess to know say that it cannot be laid without mixing it with other asphalt. The president of the Federal company virtually admits that it is experimental, but insists they can and will make it good.

From the city engineer:

We have 5,000 square yards of rock asphalt laid and 32,000 square yards under contract. It has been used three months. It is not satisfactory. Surface laid in unfavorable weather by inexperienced workmen, and is lacking in density,



tenacity, and enduring qualities generally. Contractors will take up what is now laid.

WABASH, IND.

From the mayor:

We have 13,000 square yards of rock asphalt in use here. In use six months. The average price was \$1.69 per square yard. It is not satisfactory. Will not stand heavy traffic. We require a guaranty of ten years on rock asphalt. It is not worth anything for street pavements. We have had six months' experience in the use of rock asphalt, and we need a new surface now.

PHILADELPHIA, PA.

From the chief, Bureau of Highways:

In reply would say that rock asphalt has not been used in street pavements in this city. We have absolutely no knowledge whatever concerning its properties. We have 322 miles of streets in this city paved with sheet asphalt, all of which, with the exception of a few blocks, is of Trinidad lake or Bermudez lake asphalt. We have a few blocks of streets paved with rock asphalt from Europe, but this has become so hard that it is avoided by careful drivers, and when the guaranty for maintenance expires it is the intention of the city authorities to replace this rock asphalt with Trinidad lake or Bermudez lake asphalt.

ST. LOUIS, MO.

From the street commissioner:

We have 53,880 square yards of rock asphalt in use; 9,568 square yards for two years, balance few months. The cost was on an average \$1.89 per square yard, including concrete. The first attempt was not satisfactory. It decayed. This work was done under private contract, with five years' guaranty. Can not say whether rock is mixed with any other kind of asphalt. We require a ten years' guaranty of maintenance. Rock asphalt has hardly passed the stage of experiment, but this city is secured by ten years guaranty. Experience too short to give judgment on use of rock asphalt. Our experience with rock asphalts has not been satisfactory, constant repairs being necessary.

DETROIT, MICH.

From the secretary Department of Public Works:

I wish to say that Detroit has never used the rock asphalt for paving purposes, and, although an agent representing this brand communicated with the department and came from Chicago to see Commissioner Moreland about three weeks ago, the commissioner informed me that he did not consider the material worth laying, and under no circumstances would insert it in his specifications.

INDIANAPOLIS, IND.

From the city engineer:

We have about 12,000 square yards of rock asphalt in use which was laid about five years ago. Has not proven entirely satisfactory, but it may be due partially to the manner in which it was laid. Our present specifications admit the use of rock asphalt. The above laid with about 25 per cent of German rock. We require a guaranty of maintenance for nine years.

ST. PAUL, MINN.

From the acting mayor:

Rock asphalt is not used here.

This city prefers to allow other cities to experiment. Our experience in that line was unsatisfactory.

COLUMBUS, O.

Some 15,431 square yards of rock asphalt was laid in this city in 1890. The abutting property owners were greatly dissatisfied with the rock asphalt paving when first laid, as it seemed to lack cementing properties and was easily displaced by horses' feet. The contractor for the work took much pains with the pavement and rolled it the following season in an effort to better its condition. After about three years the pavement had solidified so that it was reasonably smooth and hard, but it has never been as smooth as asphalt streets of other material. One street was laid in 1903 and is badly cracked and disintegrated.

\* \* \*

As a result of these letters from different cities, added to his own investigations, Mayor Rose of Milwaukee took a firm stand against the rock asphalt firms that had been trying to saddle their pavement upon the taxpayers, and on March 15 vetoed the action of his councilmen, who had had the gall to pass a motion shutting out competition of the refined asphalt men as against the rock asphalt firms.

As a result the taxpayers of Milwaukee are protected, and it looks now as if the specifications would be so changed as to result in the streets of that progressive city being laid with a pavement of refined asphaltum, in which, it is to be hoped, California asphalt will play an important part.

The attention of the mayors of San Francisco and Oakland, together with those at the head of the street departments of these two cities, is respectfully called to the letters as published above, and which show the failures that have resulted in the East where rock pavements have been laid.

If the Eastern cities reject pavements of bituminous rock, shall it be said that California cities adopt it, especially when California asphalt, the equal of Trinidad asphalt, can be had in abundance and at so much less expense than is entailed in the use of Trinidad asphalt in the East, where it costs \$35 a ton as against \$14 a ton, the cost of our California product.

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#### OIL INVESTMENTS.

A Chicago Financial Paper Highly Praises Them.

The effect of the widening use of oil in the common walks of life and the general acceptance of the new fuel as something to last in the staple regime of the factory and home, means that there will be a greater value to the oil-producing sections and inevitably larger dividends to the possessors of the producing properties. It is true that there are on the market a horde of fake investments of this kind brought out by the popularity attending the legitimate ones, but it does not take a very deep discrimination to determine which is the real and which the false. The oil or gas investment that promises to operate on the "get-rich-quick" plan is not to be trusted. The strictly legitimate list of investments, to which Bonds and Mortgages is devoted has no connection with these. The oil-property that is developed on the proper basis will not make the investor rich "quick" but it will return a good income and, unless there has been mismanagement along the line somewhere or a false estimate somewhere, it will be a permanent income-giver.

The demand of to-day in the investment field is permanency and the outlook for the oil field is that it will show no diminution in the supply. Rather it will be better as the years go on, for the coming

decade is certain to give a larger use to oil in the every day affairs of life and to multiply by many thousands the number of those who are purchasers of the material. It may come to be that oil will be delivered to our homes in the same every-day regularity as is coal now, and that when the kitchen fire or the parlor grate needs replenishing the oil supply will be drawn upon. The factory may be run by oil, even if far remote from the producing wells, and the railways may make this their chief source of fuel supply.

The legitimate oil fields are being extended so rapidly that it will not be long ere the supply will be equal to a much wider use at a price that can be afforded. Eastern money is going into the Western discoveries rapidly and thousands of new wells are being put down. Capitalists are evidently well satisfied with the outlook and expect larger things in the future.—Bonds and Mortgages.

There is no common stock to draw dividends earned by "guaranteed" preferred stock in the New Franklin Oil and Refining company. If you own but 100 shares you will get your proportion of the earnings in dividends. Ask us.

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journal building boston

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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## WATER IN WELLS.

### A Source of Great Danger to the Gallician Oil District.

The fact of the slowly and steadily increasing influx of water (and with increasing rapidity) into one of the formerly most productive petroleum territories of Galicia—Schodnica—has induced me to devote my attention to this phenomenon.

I found the following:—Schodnica has produced large quantities of petroleum since the year 1894, and must have delivered about the following quantities in the separate years:

1894.....	90,000 D. C.
1895.....	960,000 D. C.
1896.....	2,400,000 D. C.
1897.....	3,600,000 D. C.
1898.....	3,000,000 D. C.
1899.....	2,500,000 D. C.
1900.....	1,300,000 D. C.
1901.....	700,000 D. C.

The drillings are from 200 to 700 m. deep and the oil is in three horizons found at depths of 250 m., 500 m. and 650 m., respectively. The most important well showed an upper horizon at a depth of 200 m. (Jacob's well, 6,000 D. C. per day).

The average daily production of a well can be stated at 180 D. C. for six months, then it decreases to half that quantity and less. The productiveness continues from three to six years.

The mandates of the mountain police necessitate a distance of at least 30 m. from well to well and exclusion of water with hermetic pipes before reaching the oil bearing sandstone.

The district consists of oligacious and eocene blue, gray and red slates which, belonging to the eocene beneath them, overspread the porous oil bearing sandstone. The covering strata have many layers of a fatty impassable nature which can be regarded as water carrying. Notwithstanding the mandates of the mountain police, only a very little care has been bestowed with regard to the exclusion of water. One has scantily filled up the old wells which were no longer productive and believed no important drainage would be occasioned thereby from the following erroneous points of view:—

1. It was reasoned: In that place whence no oil comes no water can enter. It has always been considered that no communication exists between two wells situated near together. It was also assumed that by the eventual introduction of water into a well no harm could be done to the neighboring well.

2. It was considered that water could penetrate only into empty and already exploited places and likewise could not exclude the oil which could not be reached. In recent years it has been shown that this was an error. Almost all

the drillings of Schodnica began, probably a year ago, to deliver such oil mixed with water up to 50 per cent, despite the former entirely water-free production of oil. The depth from which the mixed oil and water is pumped is the same as that from which the formerly pure oil came. Furthermore, new drillings which were brought down to the best strata of Schodnica showed a smaller productiveness, and all the oil produced was mixed with water, while the earlier drillings always produced pure oil. This evil also concerns territories upon which water is faithfully excluded from the other strata. The influx of water must come from a distance.

I explain the case in the following manner: When an oil stratum is placed in communication with water running underground a constant rising of oil and a sinking of water must take place through the way of communication (the well). The water always puts itself in the place of the oil, while this is taken up in the stream of underground water, borne on, and when impregnated in the walls of the underground stream is again removed. Distributed over great surfaces hereby, the same does not always need to appear. The water, lighter flowing than the oil, penetrates with ease into the porous sandstone which forms the bed for the oil, and bores its way slowly and safely through the entire strata, thus everywhere displacing the oil and carrying it off.

The above mentioned example from Schodnica once again forcibly proves the importance of water exclusion in petroleum drilling. A fate similar to that of Schodnica is also approaching our German oil district, if it has not already set in on account of the mismanagement in the oil drilling, and a thorough professional inspection of the wells and their output will take place. Oelheim has already been lost. Wietze may yet be rescued if immediate

and energetic remedies are applied.

The following must be urgently demanded:

1. Exclusion of water at least 30 m. above the first oil horizon at least immediately where the water bearing strata is situated.
2. Prohibition of the removal of this water excluding pipe in the abandoned wells and ordering a water tight damming up of the same at time of abandoning.—Hubert Platz in Chemische Revue.

## Oil in Alsace.

In a contribution to the Physical Science Association of Karlsruhe which Prof. Engler has made on the subject of petroleum in Alsace, he refers to the early discoveries and work done. Coming to more recent years he states that in Lower Alsace, according to Jasper, forty concessions were granted for the production of crude oil during 1889. In the year 1901 the three most important companies produced 200,930 metric centners (centner is 100 pounds), compared with 225,960 metric centners in the year 1900. The chief refinery is situated at Biblisheim, while there is also one at Neustadt.

The petroleum of Alsace is saturated with carburetted hydrogen, and is similar to Pennsylvanian petroleum. The petroleum gas of Pechelbronn contains 90 per cent of methane and 5 per cent of olefiant gas, and is similar to the petroleum gas of Baku. As to the formation of petroleum in Alsace, it is Prof. Engler's opinion that it has been formed from the remains of the extinct fauna and flora. Petroleum in Alsace is found in the old tertiary strata, so that in searching for petroleum in the Rhine valley this formation is looked for, and this is also the case in Baden and the Palatinate. This formation is also found on both sides of the Rhine valley, on the slopes of the Vosges mountains, and of the Black Forest, and to a smaller extent on the right side of the Rhine.

## FUEL OIL TESTED.

### The Naval Department Makes Satisfactory Trial of Oil.

From Washington comes the information that under practically the same trying conditions as would prevail on a battleship in time of action, the board of naval officers which has been experimenting with crude oil as marine fuel has conducted a highly satisfactory test. It was witnessed by the representatives of many of the largest shipbuilding firms.

The experiment plant in Washington is similar to the engine room of cruisers of the Denver class. Beaumont oil was used, and it was clearly demonstrated that under a continuous forced draught, ranging between three and four inches for a continuous period of four hours, the oil gave a greater evaporative effect than coal, which was experimented with a year ago and the results of which are now completed for comparison.

The burner used was a development of the many types of burner which have been submitted to the board. A pressure approximately 2,000 pounds was obtained from the boiler, which, under natural draught conditions, would develop only 800 horsepower.

This convinces the experts that the increase in evaporative efficiency under forced draught as compared with natural draught is greater when oil is used than when coal is the fuel.

The temperature in the engine rooms was never greater than the crew could easily endure, although the extreme heat generated by the combustion of oil has always been used as an argument against its adoption as fuel.

Few people realize the importance of the oil industry. Last year this country alone produced sixty-three million barrels of crude petroleum. The entire world produces about one hundred and fifty million barrels. This means six billion gallons, or approximately \$600,000,000 worth of petroleum.

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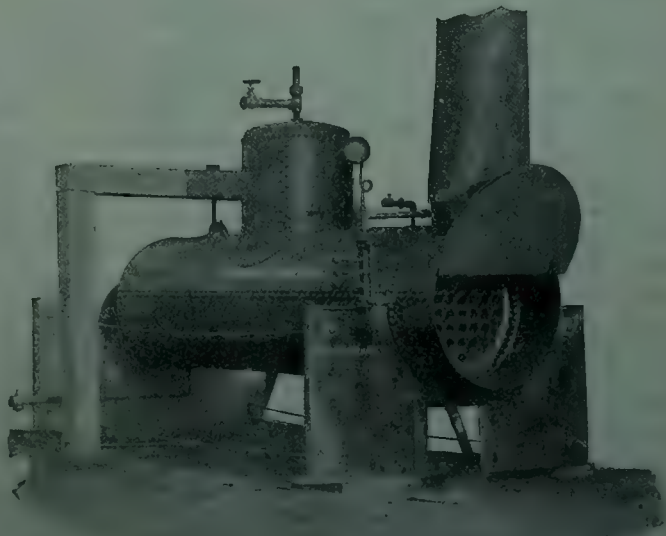
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## THE ASSOCIATED.

### The Recent Annual Statement Regarded in Various Lights.

#### The Unqualified Praise Meted Out by the Los Angeles Herald Regarded as Not Based on Sufficiently Firm Foundation of Fact.

Two weeks ago the Associated Oil company published in this and in other papers its annual statement, which was intended as is the case with the majority of all annual statements, to make the best showing possible for the company.

The PACIFIC OIL REPORTER published the annual statement just about as it was published in the other papers with the exception of a change or two which was made by the company after attention had been called to the fact that the statement as originally published would not bear the fullest investigation from the standpoint of a practical oil man, and one who knew how to figure on cost of production, etc.

This paper published the statement and supplemented it with a few general remarks, closing with the expressed wish that the year 1903 would enable the Associated to publish a much more favorable statement than that of 1902.

We let it go at that.

Now comes the Los Angeles Herald with a whoop for the Associated and its knife out for the PACIFIC OIL REPORTER, and says that this journal "has devoted page after page each week to show that the Associated Oil company is on its last legs, that it is built on an unstable foundation, and that it, in its extremity was about to pass to the Standard." The Herald then goes on to show what a satisfactory statement the Associated had made, how the stockholders were perfectly satisfied with the way the affairs of the company were being administered, and how the Associated was succeeding beautifully in spite of the attempts to knock it.

If the Herald will go over its files of the REPORTER and compare it with the files of the Herald, it will see that while the REPORTER has many times asserted the Standard was not trying to obtain the property of the Associated, and that the latter did not want to sell out to the Standard, the Herald has repeatedly stated the contrary, and has published telegraphic reports to that effect in its columns.

This paper does not believe in imposing an obstacle in the way of any enterprise that will result in broadening the scope of the oil industry. It has the very best

and kindest feelings for the Associated. It understands how mighty was the task set before Manager Porter when he undertook to prepare a statement of the actual condition of the company's affairs and one that would satisfy the stockholders and the oil public generally. That he succeeded is evidenced by the applause elicited from the Los Angeles Herald.

Now we do not want to be misunderstood or misrepresented. We do not want the charge laid at our door of attempting to "knock" the Associated, or any other legitimate enterprise connected with the oil industry, but we do ask the Herald if it has given careful attention to the tabulated statement as published in the circular which contained the "first annual statement" of the Associated Oil company.

This statement as published by the company is as follows:

#### ANNUAL STATEMENT.

December 31, 1902.

##### ASSETS.

Stock in Treasury.....	\$21,577,683.00
Bonds in Treasury.....	3,463,829.74
Real estate acquired for Stock.....	16,872,500.00
Real estate acquired for Bonds.....	75,000.00
Pers. Prop. and Imp. acquired for Stock..	1,549,617.00
Pers. Prop. and Imp. acquired for Bonds..	1,461,170.26
	\$44,999,800.00
CASH EXPENDITURE for purchase of Prop. and Imp.: Office fixtures, oil drums, burner equipment material..	15,543.04
Real estate purchased for cash.....	180,322.20
Rolling stock purchased for cash.....	47,738.40
Bonds and stock in other companies owned and controlled by A. O. Co. purchased for cash.....	94,100.20
TANKAGE AND DISTRIBUTING PLANTS at: Antioch, Grass Valley, Fresno, Ione, James town, Point Richmond, Sacramento, San Jose, Stockton; San Francisco—Seventh and Berry Sts., Main street, North Beach, Seventeenth and Texas Sts., Barge Antioch and Barge Richmond.....	190,303.59
Bakersfield Impr. including new wells...	160,338.98
Oil on hand in tanks at cost.....	62,818.04
Total.....	751,164.45
LESS: Old material used in development, operating and construction of plants.....	150,446.06
Total.....	600,718.39
Cash on hand.....	32,154.62
Accounts receivable...	251,473.72
	283,628.34
	\$45,884,146.73

##### LIABILITIES.

Capital stock.....	\$40,000,000.00
Bond issue.....	5,000,000.00
	\$45,000,000.00
Bills payable.....	522,647.26
Accounts payable.....	66,258.15
Due on contract settlements, etc.....	36,367.97
Freight liability on delivered sales.....	10,948.79
	636,222.17
Surplus.....	247,924.56
	\$45,884,146.73

##### INCOME.

Total sales, 2,648,456 barrels.....	\$1,572,425.64
Transportation exp....	754,985.49
Net realization on 2,648,456 barrels.....	817,440.35
Rebates on contracts to original owners of same in excess of 22½ cents per barrel.....	220,643.34
Net to Associated Oil company.....	\$506,797.91
Other earnings.....	18,997.18
Value of oil on hand at cost.....	62,818.04
	\$678,612.23

##### EXPENDITURE.

Production expense.....	\$152,861.57
Administration expense..	40,336.60
Sales expense.....	12,180.43
General expense, including rent, legal expense, and interest.....	39,319.30
Taxes.....	14,772.33
Royalties.....	15,096.66
Oil purchases.....	55,490.53
Liquidation reserve.....	2,000.00
Car repairs.....	665.86
Mining claim assessment work.....	21.60
Loss on barge dismantling	243.62
Freight paid on oil on hand at tanks.....	25,672.62
	\$358,461.12
Unusual expense, attendant upon organization of corporation and consolidation of properties....	72,226.55
Gain.....	247,924.56
	\$678,612.23

The quick assets, including "Cash, Accounts Receivable and Oil on Hand", amount to \$346,446.38. Against this, their current liabilities, including "Bills Payable, Accounts Payable, Due on Settlements and Freight Liability", amount to \$636,222.17. There is not included in this statement, the interest from August 1st to December 31st, on \$1,536,171 of their outstanding bond issue, which amounts to \$32,003.05, making a total current liability of \$668,225.22, or an excess current liability over quick assets of \$321,778.84.

Taking their "Income" and "Expenditure" accounts, it shows that the net value of all the oil sold during the year, and the stock on hand December 31, 1902, deducting transportation charges and the rebates given the subsidiary companies, was \$678,612.23. The various charges against said account amount to \$430,687.67, and in these charges, no part of \$160,338, given as "Improvements at Bakersfield, drilling wells", appears, and it is safe to calculate that at least one half of this amount should be charged off as a cost of maintaining production. This would increase the charges on account, \$80,169, making a total of \$510,856.67, which would leave the claimed profit on the year's business, \$167,755.56, but which is in reality, all that has been realized for all of the oil it has taken from the ground for one year.

The total sales of oil were 2,

648,456 barrels, of which 222,450 barrels were purchased, leaving its own production, 2,426,006 barrels, or an average production of 6,647 barrels per day, the total net profit realized being 6.91 cents per barrel. The production is being obtained from about 120 wells, and although there has been over seventy of their wells shut in, the fact that they had to buy oil at times to fill their contracts, would seem to show that these seventy wells were not capable of profitable operation, or they would have been made to produce.

The Associated Oil company has sold for future delivery, about 14,000,000 barrels of oil. To furnish this, it will take an average production of 10,000 barrels per day for about four years. This is all sold at prices that will not yield 20 cents per barrel over the transportation charges, and the company is on record that it costs fully 20 cents per barrel to produce all the oil, taking the good and poor together. Now, if 120 wells produce an average of about fifty-five barrels each per day, it will take 182 wells to produce the required 10,000 barrels daily, or say, the drilling of sixty-two additional wells per year. This provided always that the old well average can be maintained and the new wells are all up to that average. The average cost of these wells is about \$5,000 each, so it would seem to require an expenditure of about \$300,000 during 1903, in order to get the production up to the required 10,000 barrels per day. Where is the money to come from to meet this expenditure, to say nothing of any fund being devoted to the extinguishment of the liabilities?

The company is already in debt for \$321,000 more than its quick assets, and the income of, say, 7 cents per barrel on its present production would hardly pay for one half the new wells required to be drilled, to say nothing of paying the interest on its present indebtedness and to its bond holders. These two charges alone for the year, will amount to over \$100,000.

If any of the above deductions are wrong, or any figures given that are untrue these columns are open to the Associated Oil company, or any accredited representative of the company to show wherein they are wrong or misleading. If the figures are right (and it is believed they are) the Los Angeles Herald is wrong in praising the statement and saying how satisfactory it was to the company and its stockholders.

It strikes us the Associated Oil company has had an extremely tough fight on its hands these last twelve months. It has had heavy odds to contend with. Some of the men in charge of departments were totally unfit for their position either in brains, disposition,



temperament or business experience. These have been weeded out. The company was travelling practically a new trail, and progress has been slow. Sometimes apparently the leaders got off the trail entirely and had to get back as best they could. Expenses have been very large. They are now much lighter. Oil has been sold at ruinously low prices such as never will be quoted again. Land had to be secured, some of it purchased outright for cash; but no more land will have to be secured, not for years at any rate. The worst of the storm has been weathered, but even now the sailing isn't as good and smooth as it might be, and there are breakers ahead that are plainly visible to any experienced oil man, one of which is to get that production up to 10,000 barrels per day. The company has some remarkably good producers, one in McKittrick alone being good for over 500 barrels per day—if it would only keep up.

It is easy to understand the main motive which prompted the publication of this report, which was to smooth down the ruffles of the stockholders, and give them ground for believing that at some time there would be dividends in sight. They are in sight, but just yet they are pretty far off.

If you have ever come up from Santa Barbara by steamer you have probably wondered at the amazing distance at which the light on Point Concepcion can be seen. It looks very near at eight o'clock, but at ten it seems to be no nearer. Such is the case sometimes with dividends. They can be seen, but they do not seem to come to hand.

The PACIFIC OIL REPORTER wants to see the Associated succeed. It will succeed if it sells plenty of oil at a fair price, and the profits are not eaten up by unnecessary expenditures. It hopes the period of making contracts at any old price has passed, and it hopes that these unprofitable contracts are not so many in number and do not tie up so many barrels of oil as to make operations for the Associated unprofitable for the next year or so. These low-priced contracts are as hard to meet as "old hoss." It is to be hoped the Associated has not too great a burden of "old hoss."

While we cannot assure the stockholders of an early payment of dividends, we can truly say the outlook for the company is not nearly as bad as it was a year ago. There are dividends in sight, but as yet they are a long way off, and the Associated ship has a long distance to sail before she gets abreast the light. Then there are breakers ahead. The best we can do is to counsel to the stockholders patience, and the exercise of an abounding faith in Manager Porter and his coterie of directors.

Meanwhile if anyone needs chirking up a bit he can write to the editor of the Los Angeles Herald.

\* \* \*

Since the above was in type we have received a letter from a lady who writes she is a stockholder in one of the companies belonging to the Associated, and wants to know why it is that if the Associated is doing such a good business, and is making so much money, that they do not declare dividends to stockholders.

We are very glad the lady wrote us. We had much rather she would write than call upon us. The editor is very bashful and very much afraid in the presence of the fair sex. When a lady calls enquiring about any company, the editor is always out, and she is directed to the desk of the exchange editor or the bookkeeper or anyone but the editor. If the company enquired about is of no account, we cannot bear to tell the lady so. It might hurt her feelings, and that would be unkind. Sometimes they pour out the vials of their wrath on the editor, as if he was to blame because the company was not a dividend-payer. No, we do not like to see lady enquirers.

Why does the lady write us anyway? Why does she not go to the Haywards building and see Mr. Porter, who is easy of approach, suave, polite, handsome, polished, and is always ready to answer questions. He knows how. That is a part of the business. If he is not there, or Secretary Scribner, there is Jo. Chanslor to fall back on.

This lady inquirer wants to know why it is the Associated does not pay dividends when its annual statement says it is selling oil at 22½ cents profit a barrel.

The fact is, my lady, to tell the honest truth, the Associated is not making a profit of 22½ cents a barrel. Figure on their statement yourself, and see if you can make it show up 22½ cents profit. After the expenses are taken out, the profit will dwindle down way below that; how low we do not know.

Of the profit that is left, much of it has to go into a fund for development purposes, working capital, etc., and none is left over for dividends.

That is the way things have been this last year. Let us hope and expect that 1903 will be much better; that no more low-priced oil will be sold, and that consumption will have so overtaken the production of oil that producers will be able to charge at least twice the prices that prevailed during 1902. The average price of Kern oil at the wells at the close of 1903 ought not to be less than thirty cents. It may go higher. If it does, the Associated, rightly managed, and with a few

more good producing wells, ought to be able to declare monthly dividends. That is, if everything goes right.

If the above does not satisfy our lady enquirer, she should go direct to Manager Porter. If she cannot get satisfaction from him, as a last resort she can write to the editor of the Los Angeles Herald. He knows it all.

### Oil Cure for Deafness.

The Wellsville correspondent of the Belmont Dispatch tells the following remarkable story: Chas. Schrader of Wellsville has labored under great disadvantage for a number of years, owing to a serious affection of the ears, being at times totally unable to understand others when speaking in an ordinary tone of voice. Schrader was a boiler-maker by trade, and while serving his apprenticeship some years ago at the McEwen shops his hearing began to fail. However, he continued to follow the trade for several years, but was finally obliged to give up the business owing to deafness. His knowledge of the oil field as a driller and tool dresser secured for him a position with the Wellsville Empire Gas and Fuel company. Some weeks ago he had occasion to place his ear at the end of an open pipe-line to listen for the coming of oil which suddenly came with tremendous force, striking him squarely in the ear. Since that experience he has continued to improve until now he can hear as well as ever.—Oil City Derrick.

### Eastern Oil Deal.

The National Oil company, of Chicago, has bought the lands, leases, machinery and other holdings of the Indiana Oil and Asphaltum company of Carrol, county, Ind., for \$750,000. The Indiana Oil and Asphaltum company was organized in Carrol county two years ago and established offices in Chicago. It is understood that the National company will drive new wells and secure more land, if possible, and develop the holdings.

### Steamers to Burn Oil.

Substitution of oil burning plants for coal furnaces in coasting steamers is constantly going on, the success of the new fuel having proved not only more economical, but more cleanly, and in many instances enabling the vessels to develop greater speed than was ever before shown. The latest coasters to be transformed into oil-burners are the steam schooners Fullerton, Despatch, Prentiss and Del Norte, all at the Fulton Iron works.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## TEXAS OIL.

**Its Scarcity and High Price Militate Against Its Use.**

If the price of fuel oil continues to advance it is predicted that a number of Galveston manufacturing concerns will return to the use of coal. Prices quoted to consumers now are \$1.10 and \$1.15 per barrel. It is conceded by Galveston consumers that oil even at this price has the advantage of coal, although it is approximately close to the price of coal. In fact, they say oil is preferable to coal at the same price, because it is cleaner, more economically handled and possesses other virtues over coal. But the uncertainty of supply and price and the limited storage capacity of consumers and the refusal of producers to contract for long periods all tend to argue against the liquid fuel in the Galveston market, which is very close to the oil producing field.

### Titusville Herald.

Many an old-time oil man will rejoice over the signs of prosperity evinced by the Titusville (Pa.) Herald, the first daily paper in the oil regions. It has been enlarged from a four to an eight-page paper, and boasts of a new press, Mergenthaler machines, and all the "fixins." How we apples swim.

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Published Weekly

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Endorsed by the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

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The Temple News Stand, Chicago, Ill.  
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20 Broad Street, New York City.

SATURDAY, .....APRIL 4, 1903

There are said to be about 10,000 oil wells in the Canadian oil field that are now producing, and the total output is less than 2,000 barrels a day. This gives an average yield of about one-fifth of a barrel. There are 8,090 wells at Petrolea, 95 at Lutton, 205 at Both well, 17 at Northwood, while the oil springs, Euphenna and Smith's Falls districts are credited with nearly a thousand.

There are hundreds of wells in Ohio, Indiana and Pennsylvania that are regarded as good wells from a financial standpoint, but which do not average a production of ten barrels a day.

These wells produce a refining oil which is worth to-day from \$1.65 and \$1.50 for Tiona and Pennsylvania oil, down to \$1.06 for Indiana oil.

The Canadian wells have a great advantage over the American wells on account of the heavy duty, and a small producer there is a big dividend payer.

In California a small producer is regarded as of little account on account of the low price of oil.

This is true as regards the average fuel oil, but it does not apply to oil suitable for refining.

A good refining oil, one that will run from 30° to 50°, and can be refined at a profit, is worth just as much as Eastern oil of the same grade, plus the cost of transporting Eastern refined oil to the coast.

There is not much of this oil produced in California, but it is found here, and can be found in sufficient quantities to make its development a paying proposition.

The Half Moon Bay district presents opportunities that seem not

to be grasped by those operating there, or if they are understood and appreciated the actual development work is not carried out, either on account of lack of means, of bad management, or some other cause.

For over two years companies have been operating there and as yet have done practically nothing.

Out of the half dozen wells drilled not enough oil is being taken out to run a little twenty-barrel refinery at Half Moon bay, that will gladly pay \$1.50 a barrel at the wells for the oil, and make a large profit out of the refined product.

Something is always the matter at the Half Moon field. The few Guiberson wells are continually sanding up, and cannot be cleaned out as the tools are being used on the deep well, which has a finishing job on its hands.

The Frick & Parker wells have shown nothing to boast of, but new blood has recently gone into this firm, and it is the intention to drill a number of new wells.

The San Mateo County Oil company have been at work off and on for two years, and are working still, with a prospect.

The Pilarcitos company started a few months ago, and at 300 feet had a crooked hole, which has just been straightened out. Let us hope they will keep it straight.

The Wisconsin well is down 1,400 feet, has oil, but is troubled with water, and intends to make this well the deep test well of the territory.

The Paxton is down about 1,000 feet, and has good indications.

If all the wells now in this field were kept in order, and worked on a system they could to-day easily produce at least 100 barrels a day, and get \$1.50 for it.

There is a big opportunity here to develop one of the best fields in the State. At present the possible production per well is small, but the quality of the oil offers great inducement for further development.

It looks as if with proper appliances and skillful drillers it would not be a very difficult or expensive matter to put down a number of wells here that would average ten barrels a day at least, and prove profitable.

The oil is a good 50 gravity oil, and one barrel of it is worth ten times as much as oil of 15 gravity.

This Half Moon Bay field has as good an opportunity to make a success in the oil business as any field in the State, and with good luck, good management, sufficient money and skillful workmen the companies operating there ought to develop a sufficient number of small, if not large, producers to return a handsome profit.

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# BUY OIL STOCKS NOW.

The Big Dividend-Payers Are Selling at Less Than Their Real Worth.

Stocks of Companies That Will Soon Be Paying Substantial Dividends Can Be Bought For One-half They Will Bring In Two Years.

It is surprising that more people do not invest in the stocks of good oil companies. There is, to be sure, quite a demand for these securities. The record of the California Stock and Oil Exchange shows a weekly average of sales amounting to over \$40,000. The sales for the week ending March 14 were \$33,165.10; for March 21, \$53,626.71; for March 28, \$35,583.35. Sometimes they run over \$80,000 a week.

But, considered from the standpoint of judicious, safe and profitable investment, it is surprising these sales do not amount to twice \$80,000 a week.

Of course no investment is absolutely safe. There is a risk in anything, no matter what may be the security. Nothing is sure but death and taxes. But, taken all in all, if an oil company is rightly managed, has a sufficient acreage of absolutely proven oil land, and is so situated as to be able to secure prompt, abundant and cheap transportation for its product, there is no valid reason why an investment in the stock of such a company should not be safe and satisfactory from a dividend-paying basis.

It is a difficult matter to select a concrete illustration in proof of the above statement, for the reason so many illustrations and examples are at hand. They are not confined to the companies of any one California oil field, but to every field. Starting from Coalinga down through the fields of McKittrick, Kern River, Whittier, Ventura, Fullerton, etc., a dozen illustrations can be offered in every field.

The companies that could be mentioned possess proven territory, are surrounded by the wells of other companies, are well managed, produce plenty of oil, have contracted for the sale of their output at a good price, are paying good dividends which will be increased as the increasing consumption of oil renders the product more valuable and increases its selling price.

Some would-be investors complain at the high price at which the stock of some of these companies is held. The wonder is that these prices are as low as they are. They ought now to be from 25 to 50 per cent higher, according to the dividends they pay,

or that surely will be paid in a short time. Last week the PACIFIC OIL REPORTER'S quotations for some of these stocks were as follows: Imperial, \$18; Kern, \$4.80; Monte Cristo, \$1.30; Alma, \$1.40; Sterling, \$3.15; Thirty-three, \$8.62½; Twenty-eight, \$3 65; West Shore, \$3; Peerless, \$16; Independence, 13 cents; Oil City, 31 cents.

There is no reason in the world why all these stocks should not be selling at least 25 per cent higher than they are selling for as above quoted.

Take one of the highest in the list for example—the Peerless.

Here is a company that owns 164 acres of proven oil land. It is surrounded by wells. Every acre of it will yield oil—lots of it—and good oil. It has about twenty wells, will soon have enough more to produce 5,000 barrels a day, and it has contracted to sell all this oil for five years at a good price at the wells. At the end of five years its land will be almost as productive as it is now, and it can sell its oil for double, yes treble, what it is obtaining now, and the cost of production will not be greatly increased. The Peerless is incorporated for 100,000 shares, par value \$10; it pays regular monthly dividends, and will continue to pay them for years, the amount of the dividend increasing steadily. The last dividend declared was on March 2 of 13 cents per share. By the time this article is read another dividend will have been declared. It has already paid dividends amounting to \$78,000. The stock is held to-day to be worth \$16 a share. It pays now 12 cents a month dividend, and in a few months will be paying 25 cents. This is about the highest stock in the market, but if it is not worth to-day \$20 a share then no stock on the market is worth 25 cents. What real estate is paying such a per cent on the investment?

It was not so long ago that the PACIFIC OIL REPORTER was urging its readers to buy Peerless stock, which could then be obtained for \$2 a share.

And so on up and down the line.

It is about three years ago this paper contained an advertisement for months offering Sterling stock at 50 cents per share. Here is a



company with 160 acres of proven oil territory, surrounded by good producing wells, with a dozen wells of its own completed or nearly so, with its product all sold ahead, and the stock is selling now for \$3.15. It is capitalized for \$250,000, 250,000 shares at \$1. It has not declared a dividend yet, for the simple reason it would not sell its oil unless it could sell at a good price. It has obtained the price, is selling its oil, and is putting down more wells. It will soon be declaring dividends. This stock ought to be in demand to-day as an investment at over \$4. It will be in demand some day at \$5 and more.

Go outside of the Kern River field to the Coalinga. Within the last week or two this field has taken a spurt, and justly so, owing to the extensive operations of the Standard Oil company, in this field. Several of the Coalinga stocks have been in demand at increased price, and justly so; but the price is yet far below what the stock is worth.

Take Twenty-eight for example.

Last October it was selling at \$1.30 and this paper then said it was a good buy. But no one wanted it. Why, is a question. It had 160 acres of proven land surrounded by the wells of the California Oil Fields Limited, Caribou, Sour Dough, Oil City Petroleum, Hanford and Independence companies. It was only a question of a short time when transportation facilities would be provided. It was capitalized for \$600,000, 60,000 shares at \$10. To-day it is selling at \$3.65—not half its par value.

Including the seven wells of the Independence, its lessee, the company has thirteen producing wells, and three more are being drilled. It will soon be declaring substantial dividends. It is a good buy to-day at \$5.

To return to the Kern River district for a last illustration, and we will take one of the companies the stock of which is little heard of on the floor of the oil exchange—the Alma. It is quoted as \$1.40 bid, \$2 asked.

On a comparative basis this stock ought to be in big demand at \$3, and why it is not selling freely at that figure is a question hard to answer. Other companies could be chosen as an illustration of unreasonably low priced stock just as well as the Alma. It is one out of half a dozen at least.

The Alma owns 120 acres of absolutely proven land. Every foot is productive oil land, and the sands are deep and rich. Of this it has leased forty acres to the Apollo, and twenty to the Alma, Jr., each on a 50 per cent royalty. The land is in section 4, 29-28. The Apollo has eight wells completed, and is drilling 3; the Alma, Jr. has five wells; the Alma has six wells completed and will put down four more immediately.

The wells are good producers. The Alma Jr. put its first well on the pump a week ago, and it is good for 300 barrels a day. Eight of the Apollo wells produce 30,000 barrels a month. One of the Alma wells goes over 300 barrels a day, and the others are not far behind. The oil averages a little over 15°. By August 1st the Alma with one-half the output of its lessees will be producing at least 60,000 barrels a month, probably more. The Alma now has a contract for the sale of oil at 20 cents, which taxes its present production. On August 1st this contract expires, and it is understood that another contract will be made for all its possible production at a higher figure.

This property is surrounded on all sides by the producing wells of the Central Point, Red Bank, Black Jack, Kern River, Wolverine, Four, West Shore, Imperial, Thirty-three and Petroleum Development Oil companies. The land is as valuable as any in the State—bar none. On March 1st the company paid a dividend of three percent on 380,000 shares, amounting to \$11,400. By December 1st the company will have expended \$25,000 in wells, pumping jack, a 35,000 barrel steel tank, etc. By that time the company will be paying at least 3 per cent a month steadily.

These are facts that any one can ascertain for himself who desires to make an investment, and these same facts are true, comparatively speaking in regard to half a dozen other companies, the stock of which is selling at about the same price as the Alma,—\$1.40 bid. It is worth twice that as a legitimate investment.

What is the land of these companies worth, at the rate their stock is selling?

Peerless has 164 acres, has 100,000 shares of stock for which \$16 is asked. That gives its land a valuation of \$9,756 an acre.

The Sterling has 160 acres, has 250,000 shares of stock, for which \$3.20 is asked. That gives its land a valuation of \$5,000 an acre.

The Twenty-eight has 160 acres, 60,000 shares for which \$3.70 is asked. That gives its land a valuation of \$1,387 an acre.

The Alma has 120 acres, 400,000 shares, for which \$1.40 is bid. That would give its land a valuation of \$4,666 an acre.

Yet who would say but that the land of one of these companies is not just as good as the other. In fact take any of the companies we have chosen at random? Is there any intrinsic difference in the value of their land? As oil land, is not one tract just as good as the other?

One other element should be taken into consideration in determining the worth of oil as an investment, and that is the management of the company. Of the companies spoken of in the above

the managers of three are well-known San Franciscans. At the head of the Peerless is John M. Wright, and a better manager as yet has not appeared on the oil horizon.

H. H. Blood and William Ellery are steering the destinies of the Sterling, and if they do not know how to handle the rudder of an oil scheme, no one does. W. A. Jacobs, the manager of the Germania Life Insurance company on this coast, has developed into as good an oil manager as he is an insurance man, and those associated with him are financial leaders in Michigan. They are thorough business men, and Mr. Jacobs understands the oil situation as well as any man in the State. The Twenty-eight Oil company is a Fresno proposition, and although the management is not well known in San Francisco, their names in Fresno and in the region where their oil land is located are something to conjure by.

It so happens that none of the companies that have been mentioned belong to the Associated Oil company, so that factor is eliminated as to the prospective value of their stock as an investment.

What we started out to prove was that California oil stocks present right now unusual opportunities for judicious investment.

The highest priced stocks, like

the Peerless, are worth to-day more than is being paid for them, considering the dividends they are paying, and the low-priced stocks, of which we have taken a few at random, do not begin to be held at what they are really worth. If they are not to-day paying dividends, their condition is such in regard to possibilities of production and the absolute sale of their oil at satisfactory prices as to render it certain that in a short time—a few months, they will be able to pay substantial dividends.

Therefore we say to the investing public: Examine the condition and affairs of oil companies. If their acreage is all right, if their land is good oil land, if the company is not over-capitalized, if the management is capable and honest—if all these conditions are favorable, now is the time to buy oil stocks. Not in the next forty years will they be as low as they are to-day, and in five years or less most of them will be worth two, three and four times what they can be bought for to-day.

Many people prefer dividend-paying industrials to mines. If you are in that class, let us tell you about the New Franklin Oil and Refining company of Los Angeles, California. It is a dividend payer and has been since June, 1902.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### COLUSA.

The Colusa Consolidated Oil company is negotiating with Eastern oil men to develop their property.

W. E. Youle has dismantled the camp on Sand creek and stored such portions of his outfit as he has future use for. The remainder he sold. He is now endeavoring to interest outside capital in a proper search for pay oil in Colusa county.

### FRESNO.

Independence Oil company will deepen their No. 2 well this week.

Well No. 1 of McClurg & Claypoloe, that came in recently, produces 200 barrels.

The San Francisco Crude Oil company is putting up a rig for well No. 2 on section 6-20-15.

O. O. Allen will have charge of the teaming and the laying of the Pacific Coast Oil company's pipe line.

The Connecticut & California Oil company have started on their first well on section 6-20-16, and have made about 200 feet.

R. C. Baker is moving his rig from section 23-20-14 to the section north of it, where he will begin drilling a well at once.

The M. K. & T. Oil company, who are down nearly 1,600 feet, are pulling their 8" and 6" drive pipe to have the threads turned tapering in order to shut the water out. The drive pipe seemed to leak at the joints.

Surveyors were at work last week surveying the prospective loop of the Southern Pacific railroad. No definite route has been determined upon as yet any further than the old grade where a branch ran to the coal mines.

The Southern Pacific will at once commence work on a spur track from Coalinga up through the field. Starting from Coalinga it will run northwesterly to section 23, then north through 23 and 14 to 11; from there it will run northwesterly, just south of the Esperanza and Pennsylvania-Coalinga wells through sections 11, 12, 6, 5, 33, 28, 27, and on to the wells of the Caribou and California Oil Fields, Limited, Twenty-eight, etc.

### KERN

The Associated Oil company is about to award a contract for the erection of a 250,000 barrel reservoir at McKittrick.

The Southern Pacific Oil company begin pumping two new wells shortly, and expect to sink twenty-five more wells in the near future.

The Standard Oil company is erecting four large reservoirs at the Kern river field of a capacity of 350,000 barrels each. They will be 1,000 feet in circumference and 300 feet across.

The Provident Oil company has levied an assessment of 3½ cents per share, delinquent May 7. The Kern Canyon Oil company has also levied an assessment of 6 cents per share, delinquent April 27.

The Pittsburg Oil company is sending its stockholders notice that the dividend of 2½ per cent recently declared is payable at the office of Secretary A. Weaver in the Postal Telegraph office during banking hours on and after April 1st.

The Associated Oil company at Bakersfield has filed a suit against the Clark Refined Oil company to recover judgment for \$720.25 for goods and merchan-

dise alleged to have been furnished by the plaintiff to the defendant. The defendant is a corporation operating a refinery at Kern River.

Last Sunday a rig on the San Joaquin lease at Kern River caught fire from the friction and in a minute was in flames. There was no means of checking the blaze at the start and it soon enveloped the rig in flames. It was completely destroyed but the fire did not spread to any others in the field.

The Potomac Oil company is at work on its refinery to be erected at the Kern river field, just south of the Standard's office. The bricks and material for the work are now on the ground and a large force of men is at work on the building. The refinery will have a capacity of 1,200 barrels a day. The company has completed its office building near the

When completed the reservoir will have a depth of about seventeen and one-half feet, this measurement being taken from the top or level of the embankment to the bottom of the reservoir. The embankment walls have a gradual slope and at every point are made as firm as possible. The result is thoroughly tamped and water-packed, and by the time the reservoir reaches completion there is little doubt about its securely holding crude oil. The success of this plan of storing oil has been very thoroughly proven, and many of the largest operators are now resorting to the use of these reservoirs.

### LOS ANGELES.

Los Angeles dealers are making long-time contracts at 75 cents a barrel delivered. The demand for fuel distillate is so active that the price is firm from 75 to 80 cents a barrel, at the refineries, with all of those concerns not carrying a large surplus. In Whittier the price has been raised to 65 cents a barrel and is firmly held at that price, having gone up from 50 cents. In the Los Angeles field oil is held at 58 cents at the tanks. Many large contracts have been made at 60 cents. The stocks of the first-class article are low, making a demand upon

able, and believes the drill will soon enter the sand.

### SANTA BARBARA.

The Western Union Oil company at Los Alamos has recently brought in another fine well nearly 1,000 feet from the others. The new well is as good or better than well No. 14, which produces an average of 167 barrels of oil daily. Two other wells are being drilled.

The Brookshire Oil company's holdings are northwest of the Pinal, and a location has just been made by the Brookshire people in a direct line northwest from the Pinal and Western Union wells. The rig is being built for Brookshire No. 1 and drilling should commence next week.

Last week the Pinal made a strike in their well No. 2 at a depth of 1,530 feet. Oil sand was blown 250 feet into the well. The indications of No. 2 are better than No. 1, which is one of the best oil wells in the Los Alamos field. These wells are northwest of the Western Union group of fourteen wells, in which direction the oil-bearing formation seems to extend.

The Lompoc Oil company struck oil in its first well at a depth of 1,500 feet last Saturday. The new well is about two miles east of the Union company's well, and is located in the same territory. The conditions are much the same as on the Union company's property, the formation being almost identical. The one difference is that the Lompoc people struck the oil-bearing vein in 500 feet less than the other company.

A correspondent at Lompoc, writing to the San Luis Obispo Breeze, says of the oil situation in that district: There is a big oil boom now on. Some big sales have been consummated within a short time. Mr. Bullock sold out for \$24,000, John Drum for \$40,000, Will Robinson \$11,000, Tom Archer's place sold for \$18,000, Tapie sold for \$11,000, Finley got \$150 an acre, and everything in this range of mountains is sold, leased or under option. There is a 300-barrel well on the Purisama and another is soon to be sunk on the Tapie place.

Some decided misunderstanding appears regarding the Western Union wells, says the Santa Barbara Press. It was reported that the oil was diminishing in the wells, while the fact of the case is that the oil supply is too much for the facilities of delivering through the pipe line, and so several wells were stopped pumping, fewer wells being able

## Wyoming Edition.

On May 16th the PACIFIC OIL REPORTER will publish a SPECIAL WYOMING EDITION. It will contain an accurate description of this important field, geological formations, oil indications and development, full accounts of all companies operating in this new field, and half-tone reproductions of photographs specially taken for this edition, which will consist of 20,000 copies. Orders for extra copies or for advertising space should be entered at once.

The price per copy will be as usual, 10 cents.

For particulars address the San Francisco office, or our Wyoming representative, E. S. Eastman, Evanston.

refinery and is one of the prettiest in the field.

Superintendent Ball of the Kern River Oil company at McKittrick, says the Californian, reports business good in the west side fields. Mr. Ball has just put in a Richards pump on well No. 2 and the same is now yielding 500 barrels a day where it yielded less than a third of this amount before. The pump is being used with great success on the property and also on several others at the McKittrick fields. It is a recent invention made by George C. Richards of Oakland.

The Arcata Oil company, located on the northwest quarter of section 31-32-24, a locality better known perhaps as the connecting link between the Sunset and Midway districts, went into the second oil sand Monday after going through an unusual depth of hard clay. Very few of the operators in that part of the country have succeeded in striking such a stratum of clay, and for some time past it has been predicted that a good discovery would be struck. The full extent of the strike made Monday has not been determined, but judged by reports from the camp it comes up to all expectations. The second sand was struck at a depth of over 1,400 feet.

H. F. Burton, who has the contract to construct a 470,000 barrel reservoir for the Associated Oil company, has a considerable force already at work on the new receptacle for the product of Kern river wells. This reservoir, says the Echo, will cover almost five acres of ground, and in order to provide the required space for this bulk of oil it will be necessary to remove a world of earth.

the second-class product a necessity. Stocks are well cleaned up and from indications the price will go higher.

### SAN DIEGO.

The Cactus Oil company is down about 950 feet, and Captain Barrett expects any day to receive news of an oil strike. He says everything looks favor-



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Halfmoon Bay produces the highest grade oil in California, 50 to 55 degrees gravity. Refinery at Halfmoon Bay buys the oil at the well, and pays \$1.75 per barrel. Information on request.



to keep the Alcatraz pipe line filled to delivering capacity. As we can understand, the pipe line belongs to the Pacific Transportation company. The Western Union company is not yet done boring wells; when that is through it is presumed the company will then arrange about surplus delivery, or its successors will have the matter to meet. The Pinal Oil company is just beginning on probably the same line of development as its predecessor, the Western Union, has already gone through.

VENTURA.

C. A. Burrows finished up a well in Wheeler canyon last week which is good for fifty barrels per day.

After a shut down of a couple of months, the Sespe Canyon Oil company have resumed work on their lease. Workmen are now rigging up on their well No. 2.

The Tapo Oil company has obtained a lease of the Sutherland Hutton property near Buckhorn, and will move its tools over from their lease on the south slope of South mountain and begin drilling operations at once.

The Sulphur Mountain Petroleum company, a Fullerton corporation, which has been drilling for a long time on Sulphur mountain, has at last been rewarded for its perseverance. After drilling for almost two years and expending \$25,000 they have reached a depth of 2,000 feet and have brought in a very promising well. As it has not been put on the pump yet it is not known what it will produce, but it is estimated to be about a 30-barrel well.

Work has again been commenced on the Northern Oil company's property. Some months ago the creditors of the Seaboard Consolidated Oil company, a Chicago corporation operating on the lease, attached the property. Work was stopped and the parties interested have been working for a settlement of the matter ever since. A plan was finally settled upon by which the work was to be carried on under the management of a trustee for all the parties concerned, and it is under this arrangement that the work is now being carried on.

The oil outlook has been brightened somewhat in the county, says the Ventura Free Press, by the reported sale of the production of the leases of the Empire Oil company and Capitol Crude Oil company to the Standard Oil company. Some time ago the Empire Oil company sold that portion of its production which would test 30 degrees to a Los Angeles refinery for \$1.25 per barrel f. o. b. cars Santa Paula. The price reported for the balance of its production is \$1.30 per barrel. The Capitol Crude Oil company's oil is a heavier grade and brings 90 cents per barrel. Two strings of tools will be started immediately on each lease.

WYOMING.

EVANSTON, March 27th.

The American Consolidated Oil company commenced drilling on section 14 in the Spring Valley in their new rig to-day.

Messrs. L. E. Nebergall and R. E. Ellis, prominent men in the Uinta oil industry, were in town to-day looking over the situation for the coming season. These gentlemen will leave for San Francisco Monday, returning early in April, Mr. Nebergall bringing his family with him. They both expressed entire satisfaction at the outlook and expect to carry on extensive operations in the way of development at once.

Another oil company has been formed to operate in the Uinta oil fields. It is known as the Round Mountain Oil company and is composed of prominent professional and business men of Evanston, Wy. and Sidney, Nebr. They have their drilling machinery on the way to Evanston and will commence to drill on

NEV. section 24, 17-118 as soon as preparations can be made. This tract takes in a part of Round mountain. The company also owns five other tracts of land in various parts of the Uinta oil field.

C. A. Dorne, a representative of the Union Oil Tool company was in town to-day, and secured a site near the railway line just above the warehouse of the Evanston Lumber company, on which he will construct a machine shop and warehouse. Each building will be about sixty by eighty feet in size. A full supply of oil well supplies will be carried to meet the growing business of this company in the Uinta oil field; they will also be prepared to do all kinds of well machine repair work. Mr. Dorne's company is very enthusiastic at the outlook here and predict a great future for Uinta county oil industry. Mr. Dorne states that the buildings will be completed by the first of May.

The general land office has directed the officers of the Evanston to suspend until December 1st next, from disposition under the railroad grants an area in southwestern Wyoming of fifty full townships and eight fractional townships, being all of townships 13 to 21 in ranges 115 to 121 (excepting townships 13 and 14 in ranges 115 and 116), thirty-nine miles wide from east to west and fifty-four miles long from north to south, embracing the Hilliard, Spring Valley, Piedmont, Evanston and Fossil oil districts. The lands in question are drawn from entry location and disposition of every character other than under the mining laws of the United States. If it is not determined that they are of mineral value they will be restored to the railway land grant and to the public domain for entry under all laws on December 1st. The withdrawal is in accordance with the recent decision of the secretary of the interior which held that the lands within the railway grants are not exempted from location under the mining laws pertaining to all classes of minerals. As the matter now stands all land included in the above named tract are open to filing under the mineral laws of the United States.

Your correspondent has just returned from a trip to the Bettys Oil & Development company's possessions which are located about six miles east of Evanston. I feel so much impressed with what I saw and learned of this company that I feel a word is due them. I stayed nearly two days at this camp, and looking over the surrounding country which seems to have a superior advantage to any part of the oil field I have thus far visited. A dam has been constructed close to the derrick forming a body of water some 300 feet long by 100 feet wide into which a considerable stream of water was flowing. Following up this stream for some distance I found a number of springs of pure water, and feel confident the Bettys company will never lack for a water supply for all purposes. These springs were all located on property belonging to the Bettys company. The camp consisted of a drilling rig, engine and boiler room, bunk house, cook house and a large underground cellar. The buildings were substantial in every detail, yet everything about the place carried an air of economy, and I learn that perhaps no outfit in the field has been so substantially constructed at so small an expenditure. The Bettys rig is recognized as one of the best. The stockholders of this company made no mistake in securing the services of an experienced man for the management of their affairs. The rig seemed to be on the side of a long, low ridge or "hog back," which are the principal seats of oil and gas in this country. They seemed favorably located for extensive operations in the development of their property which is sure to follow the first strike of oil, which is expected to be but

a matter of a few months, perhaps weeks. They are but a mile from Bear River siding, which eliminates the immense expense of hauling freight for miles over the country, as some other companies have been obliged to do.

Oil Developments.

The opening, a few days ago, of a "gusher" oil well in the Los Alamos district, situated in the northern part of Santa Barbara county, is a development of the greatest importance, because it not only establishes the productiveness of that oil field, but it materially enlarges the known area of oil-bearing territory in that section. It carries the belt over the Los Alamos divide, several miles from where the Union and Careaga companies made rich discoveries of oil recently, and tends to prove the theory advanced by experts that a ten-mile strip, extending from Santa Maria through Los Alamos and Lompoc to the sea, a distance of thirty miles, is all oil-bearing.

This is the oil field recently examined by the experts of a Mexican syndicate which is planning the erection of a smelter on the Santa Barbara or San Luis Obispo shore for the reduction of the iron ore deposits near Mazatlan. This concern evidently means to rely upon the McKittrick or the Los Alamos oil field for its supply of fuel. The opening of this new gusher in the latter oil field at this time is likely to have an important influence on the selection of the smelter site, as the cost of transportation cuts a big figure in the fuel supply of such an industry. At present the Los Alamos district constitutes the northern extremity of the oil-producing measures of the southern coast of the State, which extend for a distance of nearly two hundred miles, through Los Angeles, Ventura and Santa Barbara counties. As oil has also been found in Santa Cruz county, the unexplored territory in Monterey and San Luis Obispo counties may yet prove productive, and thus make a practically continuous oil field nearly three hundred miles in length, only narrow bands of barren territory separating the various oil-bearing measures.

Another important develop-

ment in the petroleum industry of the State is the starting of the oil product of the Kern district down the pipe-line of the Standard Oil company from Bakersfield to Point Richmond. The stream has been successfully carried through the first section to the second pumping station. As the flow is slow, and the three hundred miles of pipe will absorb a large volume of oil before it is filled, the stream will not reach Point Richmond for several days, but once it begins to discharge there the flow will be continuous thereafter. The works at Point Richmond are supplied with an enormous tankage to receive it, and the operation of the pipe-line thus marks another stage in the development of California's oil industry.—S. F. Chronicle.

Japanese Oil Frauds.

A sensation has been caused in the Orient by the arrest of many Japanese oil dealers, most of them wholesalers, last month at the instance of the Standard Oil company, which controls the oil trade of the Asiatic coast by shipments from Philadelphia and New York.

The dealers arrested at Osaka and Kobe are charged with having bought up boxes and cans of the Standard Oil company bearing certain brands and selling in them cheap and inferior oil to the Japanese public, which supposed it was buying refined American petroleum. This business proved highly lucrative all last year, but eventually resulted in vigorous complaints to the Standard Oil company.

After long investigation the company's agents discovered what was being done and caused the arrest of the dealers concerned. The latter had been purchasing Japanese oils from the Echigo fields in large quantities and were found to have large deposits where the Standard cases were refilled.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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**OIL IN MONTANA.****Oil Discovered and Development Progressing.**

The eighth biennial report of the Montana Bureau of Agriculture, Labor and Industry gives a very complete description of the different fields in that State where oil has been discovered and the progress of development.

The Flathead field lies between the north fork of the Flathead river and the Rocky mountains, in the northwest portion of the State. Its petroleum, to judge from the numerous seepages, has a paraffine base. Development here was begun in 1901. The Butte Oil company built a wagon road from Belton, on the Great Northern railway, to the foot of Lake Kintla, four miles north of the international boundary. Machinery was hauled over this and put in place. Other companies followed, among them the Kintla Oil company of Kalispell. The deepest hole is now 1,300 feet. The report says:

"It is reasonably certain that it will yet be the scene of a great and profitable industry. The Teton county field affords every indication of being a rich oil field. The country is for the most part open and accessible by good wagon road. Fuel and water are abundant and the indications are certainly sufficient to justify extensive development work, with every prospect of rich returns from the capital so invested."

Thomas Cruse and his associates in Helena have carried on the principal development work in the Carbon county field. Five wells have been sunk and two of them have penetrated the first oil sand and show oil in the well in good quantity.

Oil was discovered in Beaverhead county fifteen years ago. Every indication from development work recently prosecuted shows that it should be a rich producer.

In connection with the numerous discoveries of oil fields, it is interesting to note the discovery of an extensive field of petroleum shale in Montana, similar to the deposits in Utah, from which large quantities of the finest oils are distilled.

These fields are located about sixty miles northeast from Helena and on unsurveyed lands, which fact has largely retarded development. But enough work has been done to prove the existence of a stratum of the shale from six to twelve feet thick, covering an area of from three to five miles in extent.

The shale has been tested by experts of experience in the raw material and in the distilled product, and has been pronounced of as high character as any to be found in the United States, and the deposits to be of great commercial value. The fields exist in

a heavily timbered country, where the snowfall is of great depth, and the district cannot be explored before the middle of June.

Steps will be taken as soon as weather conditions will permit to run preliminary surveys to ascertain the extent and exact location of the deposits, and if they are on school or railroad land or otherwise, and when these facts are definitely ascertained action will be taken to obtain legal location of the property, after which proper development work will be inaugurated.

**New Oil Sprinkler.**

R. Kauntze, who has invented a new machine for applying crude oil to the streets and roads without having to go to the trouble of heating the oil in order to sprinkle evenly, has his machine nearly ready for the first test. The plan is to work two pumps from a gear on the hind wheels of the wagon, which applies an air pressure of fifteen pounds to the square inch, and thus forces the oil out through the holes only an eighth of an inch in diameter in the sprinkling pipe on to the ground with considerable force. The machine will be ready to test in a few days, and its work will be watched with a great deal of interest.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

**Eastern Pipe-Line.**

The Pure Oil company is laying one of the largest oil lines in the country from Woodsfield, Monroe county, Ohio, to near Smithfield, Tyler county, W. Va. The Pure Oil company is an independent pipe-line with its headquarters in Philadelphia. The main line in West Virginia comes direct from Philadelphia, and its present terminus is near Smithfield, which they propose to connect with the line running from Monroe county, Ohio. Branches will extend through Monroe county and other points in Ohio.

**Oil Burner Company.**

The Jarvis Crude Oil company has been incorporated. Principal place of business, San Francisco. Capital stock, \$100,000, with \$20 subscribed, and T. P. Jarvis, J. C. Cullen, Arthur C. Lewis, George W. Parker and C. A. Thurston of San Francisco directors.

If you are a business man, let us make a business proposition to you in relation to the New Franklin Oil and Refining company of Los Angeles, Cal. It has been in operation for one year and has demonstrated beyond question its earning ability. The risk of establishing a new business is obviated by an investment in the shares of this company.

c m hatcher & company.  
journal building boston

# 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

# Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

**Treasury Stock, - - \$350,000**

**475-476 Parrott Building, 855 Market Street, San Francisco, Cal.**

TELEPHONE, SOUTH 488

Proven oil lands in Napa and Coalinga for sale cheap.

**AGENTS WANTED in All Large Cities for the Sale of Our Al Refined Asphaltum**



**THE WATER EVIL.****Bill Passed to Prevent Flooding the Oil Fields.**

There has been some trouble in several of the oil districts about abandoned wells, the operators having withdrawn the casing and allowing the surface or deep water to flood the oil sands. California has never had any law on the subject, while Pennsylvania, Ohio and other Eastern states have enacted quite restrictive measures to remedy this evil. The following law, which was passed by the last Legislature, it is hoped, will have the desired effect:

An act to prevent injury to oil or petroleum bearing strata or formations by the infiltration or intrusion of water therein.

The people of the State of California, represented in Senate and Assembly, do enact as follows:

Section 1. It shall be the duty of the owner of any well that may be drilled in the State of California on lands producing or containing oil or petroleum, to properly case such well with metal casing, in accordance with the best improved methods, landing the casing in the clay or other water impervious strata or formation underlying such oil or petroleum producing or bearing sands or strata and effectually prevent any water from penetrating such oil or petroleum producing or bearing sands or strata.

Section 2. It shall be the duty of the owner of any well referred to in section 1 of this act, before abandoning same, to withdraw the

casing therefrom and securely fill such well with clay, earth or mortar, or other good and sufficient materials, used alone or in suitable combination and thoroughly packed and tamped in the well to a point 100 feet above the upper oil or petroleum bearing or producing sand or strata, and while withdrawing the casing therefrom, and effectually shut off and exclude all water underlying and overlying such oil or petroleum bearing or producing sand or strata from penetrating such sand or strata.

Section 3. The term "owner" as herein used shall mean and include each and every person, persons, co-partnership, partnership, association or corporation owning, managing, operating, controlling or possessing any well mentioned in sections 1 and 2 of this act, either as principal or principals, lessee or lessees of such principal or principals, and their and each of their employees; the term "oil or petroleum producing or bearing sand or strata" as herein used shall mean and include any bed, seam, or stratum of rock or sand or other material which contains, includes or yields earth oil, rock oil or petroleum oil or natural gas or either of them.

Section 4. Any violation of the provisions of this act shall be deemed a misdemeanor.

**Will Oil Streets.**

The city of South Pasadena has just advertised for bids for furnishing 2,000 to 4,000 barrels of crude oil, of 14° gravity or less, to be delivered and distributed on the streets of that city.

**Petroleum as Medicine.**

Crude mineral oil, as an intestinal antiseptic value, is attested by Dr. A. D. Binkerd, of West Monterey, Pa., in a late issue of the St. Louis Medical Brief. The doctor has found the raw petroleum to be of great value as a remedial agent in many diseases, particularly in acute inflammatory affections of the respiratory organs, in disorders of the digestive functions, and he says it is worthy of trial in cases of typhoid fever.

The doctor says he was induced more than a quarter of a century ago to try the effect of crude petroleum upon diseased respiratory mucous membranes, and his experiments have continued since that time. He has tried it in his own case during the past year for general physical debility and with gratifying results.

Dr. Binkerd is a physician whose practice dates back to his service as a surgeon in the Civil War. He is well known as a writer on medical topics, and what he says on this subject will receive attention from the medical fraternity.

**Oil Information Wanted.**

Lewis E. Aubury, State mineralogist, has issued a circular request that is being mailed to oil producers and consumers, in which it is stated that the State mining bureau intends issuing a bulletin

upon the oil industry of California, giving as far as practicable analyses of the oils of the different fields (which will include gravity, flash and fire tests, viscosity, fractional distillation, sulphur and calorific values) and also the uses to which the oil is put in the State. As it is a comparatively new industry, the bureau must look to the producer, consumer and oil organizations for information and for assistance.

In concluding Mr. Aubury says: "This bulletin is to help build up the oil industry of the State, and we therefore count on you to assist us in giving us samples of oil, and such information as you consistently can, to make the bulletin a credit to the industry in question."

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**WANTED**

Position as superintendent of a thoroughly reliable oil company, by a man 32 years old, married and strictly temperate. Have thirteen years' experience, nine in Pennsylvania and West Virginia and four in California fields. Can furnish A No. 1 references as to character and ability.

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Box 321, San Francisco

**INVESTIGATION MEANS INVESTMENT**

By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY**

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, April 1st:

AZTEC.		
300 at	80.....	\$ 240 00
400 at	82½.....	330 00
CALIFORNIA STANDARD.		
100 at	13.....	13 00
CARIBOU.		
400 at	80.....	320 00
CHICAGO CRUDE.		
50 at	18.....	9 00
100 at	20.....	20 00
CLAIRMONT.		
215 at	25.....	53 75

FOUR.		
2,000 at	66.....	1,320 00
300 at	67.....	201 00

HOME OIL.		
50 at	2 75.....	137 50
300 at	2 85.....	855 00
300 at	2 95.....	885 00
100 at	2 80 (S 30).....	280 00

INDEPENDENCE.		
1,000 at	13 (S 30).....	130 00
1,000 at	13.....	130 00

JUNCTION.		
3,000 at	07.....	210 00

KERN.		
240 at	4 80.....	1,152 00
150 at	4 90.....	735 00
10 at	5 00.....	50 00

LION.		
4,600 at	08.....	368 00

MONARCH.		
2,600 at	30.....	780 00

MONTE CRISTO.		
100 at	1 32½.....	132 50

OCCIDENTAL OIL.		
2,300 at	19.....	437 00

OIL CITY PETROLEUM.		
4,400 at	31.....	1,364 00
200 at	30.....	60 00

PITTSBURG OIL.		
224 at	50.....	112 00
2,000 at	50 (S 30).....	1,000 00

REED CRUDE.		
1,100 at	32.....	352 00

S. F. & MCKITTRICK OIL.		
50 at	2 75.....	137 50

SAN JOAQUIN.		
700 at	6 00.....	4,200 00

SENATOR.		
200 at	65.....	130 00

SOVEREIGN.		
1,950 at	41.....	799 50
500 at	42 (B 30).....	210 00

STERLING.		
900 at	3 10.....	2,790 00
100 at	3 20.....	320 00
50 at	3 25.....	162 50

SUPERIOR.		
300 at	08.....	24 00

THIRTY-THREE.		
200 at	8 75.....	1,750 00

TOLTEC.		
1,000 at	15.....	150 00

TWENTY-EIGHT.		
200 at	3 60.....	720 00

33,689 Shares	Amount \$23,070.25
---------------	--------------------

CENTRAL LIGHT & POWER.		
200 at	4 00.....	\$ 800 00

200 Shares	Amount \$800
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## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.40	.....
Apollo.....	.39	.....
Aztec.....	.75	.80
Bear Flag.....	.10	.....
California Standard.....	.13	.....
Caribou.....	.80	.90
Central Point Con.....	.70	.....
Chicago Crude.....	.18	.21
Clairmont.....	.25	.27
Fauna.....	.13	.14
Four.....	.66	.....
Hanford.....	119.00	125.00
Home.....	2.75	2.85
Imperial.....	18.00	.....

Independence.....	.12	.14
Junction.....	.06	.....
Kern.....	4.95	5.00
Kern River.....	12.75	14.00
Lion.....	.07	.08
Monarch of Arizona.....	.30	.33
Monte Cristo.....	1.32½	.....
Occidental of West Va.....	.18	.19
Oil City Petroleum.....	.30	.31
Peerless.....	12.00	15.50
Pittsburg.....	.50	.55
Reed Crude.....	.32	.33
S. F. & McKittrick.....	2.50	.....
San Joaquin O. & D.....	6.00	.....
Senator.....	.64	.....
Sovereign.....	.40	.....
Sterling.....	3.10	3.15
Superior.....	.07	.09
Thirty-three.....	8.25	9.00
Toltec.....	.16	.18
Twenty-eight.....	3.30	3.50
United Petroleum.....	118.00	.....
Union.....	64.00	.....
West Shore.....	3.00	.....
Wolverine.....	.47	.55

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

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# GOLD!

Always at Par.

## Hudson Gold Mining Co.

Owens rich gold properties in Arizona; active work now in progress, to continue which stock is being sold at

**10 CENTS A SHARE** Par Value \$1.00 Full Paid, Absolutely Non-Assessable.

When present block has been subscribed price will be advanced to 20 cents per share. Send for particulars. Bank reference.

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## W. P. SWENEY.

Phone South 802

Contractor for Oil and Water Galvanized Iron and Steel Storage Tanks.

Office, 229 Parrot Building, San Francisco  
Residence 1634 A Howard Street, S. F.

Specifications Solicited.

## NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 2d, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, to the present amount of its capital stock, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.

By order of the Board of Directors.  
S. R. BREAK,  
Secretary Sinaloa Mining Company.  
Dated February 2, 1903.

# COALINGA DISTRICT



A dot thus • signifies completed wells. A dot with circle around it signifies wells drilling.

Fauna Oil Co.....	200,000 shares, 40 acres, 2 wells, 1 drilling
Independence.....	600,000 shares, 40 acres, 7 wells, 1 drilling
Oil City Pet.....	500,000 shares, 200 acres, 6 wells, 1 drilling
28 Oil.....	60,000 shares, 160 acres, 6 wells, 2 drilling
Hanford.....	2,000 shares, 640 acres, 2 wells, 1 drilling
Caribou.....	100,000 shares, 130 acres, 3 wells, 1 drilling

## Stocks in the Above Companies

Located in the celebrated

## SECTION TWENTY-EIGHT COALINGA DISTRICT

WILL

## PAY DIVIDENDS

AND

## Increase in Value One Hundred Per Cent

WITHIN THE NEXT

## TWELVE MONTHS

## Oil Contracted to the Standard Oil Company

For present market price see Record of Daily Sales.

We will buy for you on open market and guarantee lowest price.

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## Life Insurance Policies Bought

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MUTUAL SECURITIES CO.

K. R. CHENEY, Manager

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**MORE LOCOMOTIVES.**

Forty New Oil Burners Ordered by the Southern Pacific.

The Southern Pacific company has placed an order with the Baldwin Locomotive works for forty new locomotives. The new engines are to be fitted with the Vanderbilt furnace and will burn oil.

The company already has several engines fitted with the Vanderbilt furnace and finds them most satisfactory as oil burners. It is said that one Vanderbilt furnace will outlast two of the fire-box engines burning oil. This, however, is a matter of opinion for while the Southern Pacific company gets the best results from the Vanderbilt furnace, the Santa Fe people claim that the box engine is far superior.

**Pipe-Line Assessment.**

At a meeting of San Joaquin valley assessors in San Francisco last week, it was decided to assess the Standard Oil company's pipeline to Point Richmond at the rate of \$3,750 a mile, but the improvements, such as the pumping stations and telephone lines, are to be assessed separately from the line.

**Paul W. Prutzman**

113 New Montgomery St.

ANALYSIS AND REFINING  
TESTS OF PETROLEUM  
ANALYSIS OF ASPHALT &  
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Paper and Paper Bags, Twine and Supplies of every description incidental to the trade.

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**Better Than Savings Banks**

and just as safe. Our guaranteed 12% interest bearing stock. Why keep your money where it brings you only 3% when you can make four times as much without any risk? For particulars address,

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Prize-winning strains. 25 years experience. Stock and eggs for sale.

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DeKalb, Ill.

**Opportunities in a Lifetime**

Headquarters School, Government and Oil Lands in California.

School lands may be taken from 160 to 640 acres. Lands abound in all counties in State. They require no condition as to residence on land or cultivation, and carry all minerals and deposits, only \$125 an acre. Easy terms. Portunes have been made in all the California oil districts. Now is your opportunity. School lands are adapted to Farming, Raising, Timber Lands and are the safest and Cheapest Speculation in the United States. Send stamp for Land Book and Circulars. Fine proven oil lands to offer. Correspondence solicited. Established 1885.

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If You are going East call at the

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and secure a copy of the booklet entitled "Electric Lighted, or Dollar for Dollar," descriptive of the new electric-lighted Overland Limited service. Adjustable electric reading lamps in every berth, telephone service at each terminal until hour of departure.

The New Electric-Lighted Overland Limited marks an era of advance in Railroad Equipment.

R. O. MCCORMICK, T. H. GOODMAN,  
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Furnish Complete Plants for Drilling  
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STANDARD DRILLING RIGS  
OIL WELL TOOLS AND CASING  
FISHING TOOLS OF ALL KINDS  
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All of the Best Makes and Standard sizes. Second hand

**WANTED**

Good Second hand Rigs  
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Fishing Tools

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**The Star Drilling Machine**

Cut shows boiler mounted upon frame of machine for oil and gas works. It is usually advisable to have boiler mounted upon trucks separate.



Descriptive catalogue mailed free

The Portable Rig which has placed upon a lower plane the expense of operating for oil or gas.

Its tests range from shallow water wells to a limit of 2825 feet in depth, but it is especially recommended for work under 1500 feet and can handle easily 1000 feet of casing.

One No. 4 Machine has a record of Thirty-two 800-foot holes in one year.

**Made in Sizes to Suit Territory.**

The only machines made that are absolutely without annoying springs. They are simple, powerful and efficient, easy to handle at work or on the road. Used in every State and Territory and in many foreign countries.

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**STAR DRILLING MACHINE COMPANY**

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# UNION OIL TOOL COMPANY

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Manufacturers of **Up-to-Date Drilling**

AND

## Fishing Tools

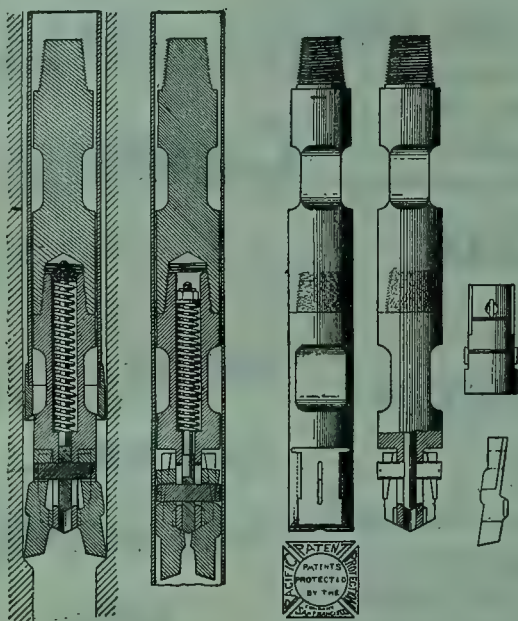
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Los Angeles, Cal.



## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

These maps are Copyrighted by the publishers, Barlow & Hill, and can only be used by them and their authorized agent in San Francisco, THE PACIFIC OIL REPORTER.

### PRICE LIST OF MAPS.

Large Blue Prints, 25x25, single map	. \$1.50
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Maps in colors, printed to order, showing in red the holdings of any particular company. Folders and Prospectuses printed giving maps and showing location of company's property, with proper descriptive matter.

The above can be obtained ONLY from

**Barlow & Hill**

1501 19th St., Bakersfield

or the

**PACIFIC OIL REPORTER**

318 Pine Street San Francisco, Cal.

## Mt. Hamilton Land and Oil Co.

Owens oil territory in the Coalinga and Kreyenhagen Oil Districts. Is now down over 400 feet on its first well at Alcalde, with every indication of striking oil. Its land is in the direct line of all the recent strikes, that of the Esperanza being the latest. Other wells are being drilled near that of the Mt. Hamilton. Its holdings comprise 560 acres.

Company Capitalized at \$1,000,000

Shares \$1.00 Par Value

In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

Office 6, 7, 8 and 9 Rea Building, - - SAN JOSE, CALA.

**The Barrett Oil Well Swivel Wrench** For carrying and placing bits in drilling stem boxes

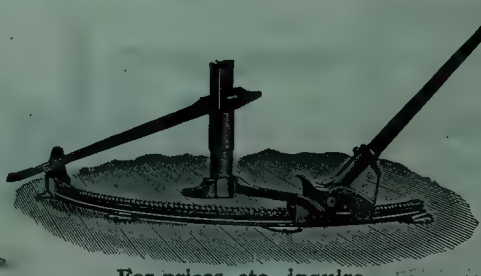


Drillers, to be successful, should use the best and latest appliances as it is **LABOR, TIME AND MONEY SAVED.**

It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

**J. BARRETT, Allegheny, Pa.**



**W. FORGIE**

WASHINGTON, PA.

Manufacturer of

**Oil & Gas Well Rig Irons**  
Sand Reels, Cants, Arms and Pins. Also the Original Tool Wrenching Jack, the best and cheapest on the market.

For prices, etc., inquire  
J. D. HOOKER, Los Angeles, Cal., PARKE & LACY CO., San Francisco, Cal., Bakersfield, Cal.



# PACIFIC REPORTER OIL

Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 23.

SAN FRANCISCO, CAL., SATURDAY, APRIL 11, 1903.

Price 10 Cents.

## OIL WELL SUPPLY CO. PITTSBURGH, PA.

MANUFACTURE EVERYTHING REQUIRED

To Drill, Equip and Operate OIL, GAS and WATER WELLS  
BOILERS, ENGINES, DRILLING and FISHING TOOLS  
MANILA & WIRE ROPE, CASING, TUBING, DRIVE & LINE PIPE  
**COMBINATION OUTFITS**

INTERCHANGEABLE FROM STANDARD CABLE DRILLING TO THE  
HYDRAULIC ROTARY SYSTEM, SHIFT MADE IN A FEW MOMENTS  
FROM ONE SYSTEM TO THE OTHER.

CABLE SYSTEM FOR HARD ROCK FORMATIONS, HYDRAULIC SYSTEM  
FOR QUICKSAND & CLAY, COMBINATION OUTFITS for any condition.



IMPERIAL WORKS, Oil City, Pa., one of the OIL WELL SUPPLY CO.'S numerous Man'f'g Plants.

### THE PORTABLE COLUMBIA DRILLER OUTFIT.

ALL STEEL, CAN BE MOVED EASILY, MOTIVE POWER EITHER STEAM  
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BUILT IN THREE SIZES, 500 ft., 1000 ft., 1500 ft.

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# PACIFIC OIL REPORTER

Vol. 4. No. 23.

SAN FRANCISCO, CAL., SATURDAY, APRIL 11, 1903.

PRICE, TEN CENTS.

## ON ENGLISH BATTLESHIPS.

### Liquid Fuel Now Being Given a Thorough Test By the British Navy.

**The Tests Thus Far Made Have Proved Very Satisfactory, the Only Defects Being Due to Mechanical or Structural Construction.**

Great attention is being paid of late by the British government to the use of liquid fuel on its battleships. Several of the largest ships in the English navy have been fitted out experimentally as oil-burners, and have been put to severe tests, the results of which as yet are unknown, as no published reports have been given out.

These tests, however, were not fairly made so far as giving oil an opportunity to prove what could be accomplished with it, as in almost every instance the ships were simply fitted out with burners, and the furnaces were not changed to meet the new conditions. It is well known that a furnace which will burn coal in a most satisfactory manner may not burn oil at all well, even though the burner installation be of the most approved pattern. On the other hand, a furnace adapted to burn oil will not or may not be adapted to burn coal.

The British government is making probably the most extensive tests of oil-burning appliances yet made by any naval power. The first tests were made on the *Surly*, the results of which as yet are unknown. These first tests started with disquieting defects in the shape of imperfect combustion and the emission of black smoke. The engine-room artificers practically succeeded in remedying this fault, and in the end the vessel was run full speed, with only light-colored fumes coming from her funnels. The trials were secret, and the engineering data, still in the hands of the Portsmouth naval authorities, will probably remain unpublished until the trials of the *Hannibal* and *Mars* have been carried out. The Admiralty will also conduct trials on the *Bedford* and *Arrogant*, two of the fastest and largest cruisers in the world. This programme of tests is far and away the most important that has been outlined by any naval power. They certainly eclipse the tests made by the American naval authorities, and about which Rear-Admiral Melville has made reports favorable to the wider adoption of liquid

fuel in the navy of this country. It may be taken for grant-

deal if the Black Sea fleet, stationed within easy reach of the Baku oil fields, can burn oil fuel under conditions of war, while the English Mediterranean fleet, eight and ten days from the chief source of its coal supply, has to depend on the hard fuel of England. Russia, with her permanent sources of oil fuel supply, has certain advantages over England when it comes to a question of using liquid fuel.

The trials of the *Hannibal* and *Mars* seem to have been satisfactory except that these trials were accompanied by vast quantities of

advance of the American in the matter of making a practical use, not to say, test of oil in its vessels. Although the merchant marine is rapidly acknowledging the superiority of oil over coal and is changing its vessels into oil burners with satisfactory rapidity, the government is making haste with provoking slowness. On this coast where oil is so cheap and plentiful the government has changed but one of its many vessels to oil burners, that one being the light house tender.

So far as the smoke defect is concerned that need not be taken into consideration as every vessel that has been properly equipped, and has secured a perfect combustion of its liquid fuel leaves no trace of smoke. This is evidenced daily on the bay of San Francisco where the largest ferry boats in the world ply back and forth every half hour, and leave not a trace of smoke in their path. Their mechanical equipments seem to have reached perfection, not only in the style of burner used but in the manner of installation, the construction of the furnace, etc.

There is certainly every reason to believe that so far as an abundant and far-reaching oil supply is concerned there is no excuse for the government to say that it would not be expedient to adopt oil in preference to coal for fuel. For years the standing objection to the change from coal to oil was the fear the supply of oil would be inadequate. That excuse has been shattered by the fact of the unlimited capabilities of the California oil fields in the way of production, and by the fact that in Alaska and in Peru oil fields are being developed that will afford in the near future an abundant supply of liquid fuel in the fuel depots of the north and south Pacific.

There will soon be no excuse for the government, or the merchant marine, or the revenue service to delay further in adopting in all its steam vessels the new fuel over the now practically obsolete and undesirable fuel of the past—coal.

### To Increase Duty.

The French Chamber is about to increase the duty on petroleum destined for the refineries by 1 franc 25 centimes per 100 kilogrammes. This increase is very unpopular in France, and will please nobody, neither refiners nor consumers.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



Oil-burning English battleship Hannibal.

ed that the British naval authorities are cognizant of the use that is being made of liquid fuel in some of the navies of European powers. These appear to be satisfied with oil; they use it regularly in some of their most important vessels, and are no longer engaged in carrying out experiments on a scale of any importance. Russia has oil-fired warships, and the veriest tyro in naval fuel matters will grasp the significance of the fact that the Muscovite stands to gain a great

black smoke and the combustion seems to have been imperfect. These are defects that can easily be remedied as they will be found to be structural or mechanical and remedial by scientific investigation. As a matter of fact only a few of the furnaces in these vessels were fitted with oil-burning appliances, and some of the furnaces were burning coal while the others were burning oil. Hence, perhaps, the smoke.

One thing is sure, and that is the English government is far in-



## CRUDE OIL AS FUEL.

### Valuable Address by Lieut. A. M. Hunt Before the Miners' Association.

#### Facts and Figures by a Large Oil Consumer Which Show the Relative Superiority of Liquid Over Other Fuels.

Mr. President and Members of the Convention: A person who reads or listens to an article on the use of crude oil fuel should bear in mind the old adage that "figures cannot lie," but at the same time he should not lose sight of the equally true if not so commonly used expression, that "liars will figure." I shall, however, in the present instance, endeavor to deal with absolute facts, and the data used and the figures given are those obtained in my own actual experience, not relying in any particular on items which I have not verified personally.

Since 1894 I have been connected with various plants on the Coast using large amounts of California crude oil as fuel, of all grades, from very light to very heavy. At the Midwinter fair in this city I had under my charge a boiler plant of 3,000 horse power, using fuel oil exclusively for a period of six months. For fifteen months I was connected with the Los Angeles Railway company, using fuel oil exclusively in its plant. For the past three years I have been general manager of the Independent Electric Light and Power company, which is now using an average of over 300 barrels daily.

The question is frequently raised as to what oil is best adapted for fuel purposes, and gives the greatest value per dollar expended. Within the range of fuel oils on the market to-day there is very little choice. Most of the oil sold for fuel purposes ranges in gravity from 14° Baume to 20° Baume, and the persons producing light and heavy oil each present argument in favor of their product, attempting to prove that it has higher heat values.

In considering this question it must be borne in mind that oil is always purchased by measure and not by weight. It is true that the lighter gravity oils contain a slightly greater number of heat units per pound than the heavier oils, but in buying a gallon of heavy oil a person obtains more pounds of fuel than in the case of light oils. In the operation of the Independent company's plant, very careful records have been kept of the amount of oil consumed and of power produced for a period of over two years. During the first year, the oil used was

of heavy grade, averaging about 14½° Baume. During the second year, the oil used varied from about 18° to 20° Baume. Taking the total records of the two years, if there is any difference whatever in the results obtained, I should say it was slightly in favor of the heavier oil, although the difference is so slight that it might be accounted for by factors other than the oil. The heavier an oil is the more difficult it is to force it through small pipes and connections of a plant. By properly arranging the devices, however, this point offers no difficulty, and if I were contracting to-day for fuel oil, I would not pay a fraction of a cent difference per barrel for one gravity of oil over another, within the limits of the oil that is handled in the market.

The principal application of oil for fuel is in the production of steam for various uses, and the measure of value of the oil is usually taken as the number of pounds of water which the oil will evaporate, and in order that different instances may be brought to a common basis for comparison, the actual evaporation is always figured as what the evaporation would be from water at 212° Fahrenheit. I have made a very great many tests at different times during the past eight years on this point, using boilers of different makes. The best results I have ever been able to obtain, under the most favorable conditions, and with efficient types of boilers, has been an evaporation of 15½ pounds of water per barrel of oil from and at 212° Fahrenheit, and this only when the load on the boiler was maintained uniformly during the test at the best point of economy for the boiler. I have frequently seen claims made of higher evaporation than this, but have always been inclined to discredit them. Not many years ago there was a man in this city who claimed by the use of his particular type of burner to produce an evaporation that would require the oil to develop heat units in excess of what the oil actually contained; in other words, to produce something out of nothing.

In installing an oil-burning plant, the question of what type of burner to use is one that causes a great deal of worry to the aver-

age man. The number of burners on the market is enormous, each claiming to be better than any other and to produce results that exceed those obtainable by any other type. During the present year there has been undertaken by the navy department, a series of tests as to the adaptability of oil for fuel purposes on our men-of-war vessels, and there has lately been issued in the annual report of Admiral Melville, chief of the Bureau of Steam Engineering, a preliminary statement by the board having this matter in charge. The work which has been undertaken will certainly prove of great value to all users of petroleum fuel, and the undoubted impartiality and honesty of this board gives greater weight to their statements than the usual run of reports and tests of similar character. I quote several selections which indicate the opinion of the members of this board on the question of burners, and can state that my own experience confirms them:

"That the efficiency of oil fuel plants will be greatly dependent upon the general character of the installation of auxiliaries and fittings, and, therefore, the work should only be entrusted to those who have given careful study to the matter, and who have had extended experience in burning the crude product. The form of the

burner will play a very small part in increasing the use of crude petroleum. The method and character of the installation will count for much, but where burners are simple in design and are constructed in accordance with scientific principals there will be very little difference in their efficiency. Consumers should principally look out that they do not purchase appliances that have been untried and have been designed by persons who have had but limited experience in operating oil devices."

"There are on file in this bureau over 2,900 drawings and specifications pertaining to the use of liquid fuel, and it is said that new patents are being issued at the rate of about thirty a week."

"There has been sufficient evidence already produced to prove that in all probability special forms of burner will be required for different types of boilers."

A further point that is frequently raised in considering the use of petroleum is as to its relative value, compared with coal, and in connection with mining installations, the comparison must often be made with wood. It should be borne in mind, in making any such comparison, that the words coal or wood do not express

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any standard, as there is extremely great variation between different coals and different kinds of wood. Crude petroleum, however, so far at least as produced on this coast, is fairly uniform in heat producing power. Taking the result of my experience with coast coals, and assuming Wellington coal as a standard, I should give their relative values as being about 4 to 4½ barrels of crude oil equal to one long ton of average Wellington coal. Taking the average wood used for fuel in California, I should place approximately two cords of wood equal to one ton of coal. I have frequently heard oil men give the relative value of oil and coal as 3½ barrels of oil per ton of coal, but consider that this figure is apt to lead to disappointment when actual tests are made. I have been asked to make a hurried comparison as to the cost of power developed on tide water of

impulse wheels; that the distance of transmission, as before stated, will be 200 miles, and the voltage for transmission 60,000.

In order to eliminate as many items from the comparisons as possible, I have made a close estimate of the cost of the steam plant, the data of which can be absolutely determined, and I would state that this estimate is based on present prices of machinery, and confirmed by the results obtained in the erection of large plants within the past few years. In the case of the hydraulic plant, these elements are not absolutely determinable, as each individual case is a law unto itself.

The cost per horse-power installed in the steam plant is, however, such that I can positively state that to equal it in any hydraulic plant, taking into account the hydraulic development, powerhouse machinery and everything

required to produce the power I have taken from the actual results and experiences in plants which I have operated, and while the conditions are such that it is not possible for me to lay before you in detail the record of operation of these plants, I can assure you that the figures are absolute and correct. It is probable that any figures which I may lay before you will be criticized and attacked, but I have endeavored to give them without bias or prejudice, in order that the comparison may be absolutely fair.

The amount of copper required to transmit 50,000 horse-power a distance of 200 miles, at 10 percent loss under normal conditions is approximately 16,000,000 pounds. It would be absolutely necessary to erect at least two distinct and separate transmission lines, in order to guarantee continuous operation. I have figured on using a

any way excessive. The total charge, therefore, against the pole line would be \$420,000 yearly, or the sum of \$8.40 per horse-power per year.

Under similar circumstances, operating the steam plant twenty-four hours daily and 365 days per year, the output of the steam plant per horse-power installed would be \$19.68, showing a very great advantage for the water power. However, there is no instance in which power is taken twenty-four hours daily and for the entire year. It must be remembered that these figures do not represent the actual cost of producing power, but are only the cost of the items not common to the two cases compared.

I have made a second comparison, taking the actual operating conditions as they obtain in the city of San Francisco, in a plant carrying both power and lighting

Hauling supplies into the Sunset-Midway districts, where development work is being actively resumed on a large scale.

San Francisco, in large units, using fuel oil, with the cost of delivery of electric power over a long distance line, assuming the power to be produced from some one of our many mountain streams. In making this comparison, I was asked to take plants capable of delivering 50,000 horse-power each, and assume the distance of transmission to be 200 miles.

The data which I have used for the steam plant is as follows:

That the plant shall contain eight 5,000 kilowatt steam turbine driven alternators, and to be fitted with the best type of boilers, auxiliaries and all devices for economy. I have taken the price of fuel at 55 cents per barrel, at which rate long term contracts have been made for large quantities of oil within the past few months. I have assumed that the hydraulic plant will have an equal number of units driven by

up to the point where the power goes on to the line, would require that the conditions should be extremely favorable, and I doubt whether there is any locality in California, at least none with which I am acquainted, that would permit an equally low cost. The amount of labor in the steam plant, using such units as have been indicated, and with the small amount of labor required in operating a boiler plant using oil, would be no greater than the labor required to operate the hydraulic plant and care for the water system. The items of cost which should be compared and which I have assumed and taken, are the interest, depreciation and taxes on the cost of the pole line and the cost of patrolling and caring for same, in the steam plant, the cost of fuel, water required for steam, and miscellaneous supplies. The amount of fuel re-

quired to produce the power I have taken from the actual results and experiences in plants which I have operated, and while the conditions are such that it is not possible for me to lay before you in detail the record of operation of these plants, I can assure you that the figures are absolute and correct. It is probable that any figures which I may lay before you will be criticized and attacked, but I have endeavored to give them without bias or prejudice, in order that the comparison may be absolutely fair.

I will take first the cost per horse-power, when same is called for and taken twenty-four hours daily for 365 days per year. In the case of the water power plant, it is immaterial what the number of hours may be. The cost of operation per horse-power of plant installed remains the same, as the operating cost is a lump sum which does not vary with the number of hours' use made of the current. I have assumed, for the purposes of calculation, that interest, depreciation, taxes and all other charges against the pole lines will be covered by 12 percent on the investment therein, and I do not think that this is in

load, as well as a portion of the street railway system. The load of this plant is absolutely representative of the local conditions, and any person figuring on entering San Francisco market with transmitted power must figure on the conditions as they actually exist. It should be borne in mind that during the winter time the amount of load taken by practically all consumers is very considerably increased, and that they will all make heavy demands for a very limited time in the evening during such months. As an example, all factories operating and taking current from an electric power company, need lights for a comparatively short time, at period between half past four in the afternoon and the time of closing, and to meet this demand machinery must be installed which will be entirely idle during a great part of the year, and only

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It will be very surprising to any of you to know the actual facts with reference to the street railroad load in the city of San Francisco. I believe I am well within bounds, basing what I say on information received from parties well informed on the matter, that the maximum load during the twenty-four hours on the street railway system is at least three times the average, figured on a twenty-four hour basis. Taking the cost for delivery of power, under conditions as they actually exist with the hydraulic plant, the cost would be \$8.40 per horse-power per year. With the steam plant this figure becomes \$5.72, showing that with the conditions as they exist at the present time the character and class of load being taken from actual results, the price of fuel being taken on the basis of contracts lately made, the steam plant has the advantage.

In this connection it should furthermore be borne in mind that there is little or no probability of the cost of transmitted power being reduced. The only way in which the charges under consideration in the present instance could be lowered would be by increasing the voltage at which the line is operated. It seems to be the general consensus of opinion, and as the results of experiments made, that the voltage of 60,000 is as high as we may expect to see used unless some radical unforeseen developments take place. The converse is the case with reference to power generation from fuel. The entire engineering world is at the present time in a state of ferment over the solution of this problem. Internal combustion engines are being developed more and more, and types in which oil may be used direct in the cylinders of the engine are coming to the front and promise practical results. The Diesel motor has lately been taken hold of by a large company in New York, and will be vigorously exploited in this country. Reliable tests show that it will yield a horse-power with two-thirds, if not less, of the amount of fuel used by the best steam engine. A new type of oil engine, of 200 horse-power, is under construction in this city at the present time that promises to give a horse-power on less than one-half of the fuel oil used with the best steam engine. And it seems more than probable that within a very few years present results will be greatly improved.

With the amount of fuel oil which is being produced on the Pacific Coast and the conditions which exist with reference to other fuels it has always seemed to me that it should be adapted to a greater variety of uses. A considerable amount of work is being

done at the present time in the utilization of crude oil to the exclusion of coal in the production of gas, and this promises to become a quite important factor in the crude oil market. There is no reason why crude oil should not be applied to forge work and heating furnaces, and this is done in some of the Eastern manufactories not only on the score of less cost, but greater convenience. I see no reason why the high-priced coke used by founders should not be replaced by crude oil. It would involve the necessity of modified forms of cupolas and possibly the adoption of some type of hearth furnace, but the incentive would seem to me sufficient to justify experiment in this direction. If iron is ever to be smelted on this coast, it would seem that it must be done with oil fuel, or at least with its aid.

### Is Appreciated.

That the PACIFIC OIL REPORTER is appreciated by those engaged in the oil and asphalt industry is evidenced in the following extract, which appears in a letter from President J. H. McNeil of the British-California Refining company at Los Angeles. The letter is in answer to a request for information concerning a branch of the asphalt industry. The extract is as follows:

"MR. W. B. WINN—Dear Sir: I fear I can give you little of interest, as you appear to be well posted on the OIL AND ASPHALT INDUSTRY. I can freely say that the articles appearing in your journal furnish most intelligent reading, based as they are on the facts as they exist. You are doing more good for the oil and asphalt industry than any publication of which I have knowledge. Facts are good enough, and when the value of the California products from oil are known we need have no fear of the foreign product.

"Very truly yours,

"J. H. McNEIL."

It is believed by leading metallurgists that the presence of solid carbon is necessary to the reduction of iron ore, but this does not necessarily preclude the use of crude oil, as it contains on the average approximately 84 per cent of carbon, and it is by no means an impossibility that the problem may be successfully solved.

### One On the Standard.

This rather unique explanation of the Martinique disaster has been given by a negro orator: "De earf, my friens," he said, "resolves on axels, as we all know. Somefin' is needed to keep the axels greased; so, when de earf was made, petroleum was put in its inside for dat purpose. De Stanard Oil comp'ny comes along an' strax dat petroleum by borin' holes in de earf. De earf stix on its axels an' won't go round no more; den dere is a hot box just as ef de earf wuz a big railway train—an den, my friens, dere is trouble."

## NEW MINING EXCHANGE.

### Brokers Form New Exchange to Deal in Tonopah.

The San Francisco and Tonopah Mining Exchange was organized Tuesday night at a meeting of brokers held in the assembly hall of the Mills building. Fifty-two charter members signed the roll. The membership is limited to 100. The following officers were elected: Henry C. Cutting, president; Emile E. Kahn, vice-president; Louis Hagan, secretary; J. L. Ewen, treasurer. The president was authorized to appoint a committee to prepare a constitution and by-laws and to select rooms for the exchange, and this committee will report at a meeting to be held next Monday night.

The charter members are: Wilfred Page, J. J. McKenzie, J. B.

charter members was fixed at \$50 each. It was decided to organize as a voluntary association, and not as an incorporation, the example of other stock exchanges being followed in this respect. A discussion took place in relation to the name of the new enterprise. J. B. Toplitz favored omitting the word Tonopah from the title and adopting the name of the Pacific Coast Stock Exchange. Wilfred Page said that camps in which big strikes had been made within his recollection were forgotten, and that after Tonopah had been worked out the exchange might still be in existence. Emile E. Kahn also opposed using the name of a particular mining section in designating the exchange.

Congressman-elect C. D. Van Duzer of Nevada advocated the use of the word Tonopah, and W. J. Harris suggested the name which was finally selected, J. M. Reuck seconding the suggestion.

President Cutting said that Tonopah would eclipse the Comstock at its richest period. He remarked that the public was tired of the Comstock assessment stocks, but that a big business would be done in the Tonopah stocks on account of the ability of the ability of the Tonopah mining companies to pay dividends.

"We want to show," Cutting added, "that investing in mining stocks is as much a business proposition as investing in railroad stocks or other securities." Cutting lately came from Nevada, and spoke in glowing style of the wealth of Tonopah.

Congressman Van Duzer said: "This exchange is going to inaugurate a new era in the mining stock business. The public, instead of continuing to pay tribute to Pine street, will draw down dividends on mining stocks, and California investors will be given an opportunity to regain the money they have lost in mining stock investments."

Other sanguine speeches were made.

### Alaska Oil.

Analysis of sample of Alaska (Kayak) oil furnished by Captain James R. Ritchie; the amount used, 24 ounces, specific gravity, 43 baume.

Part No. 1. Above 60 b, 25 percent.

Part No. 2. Illumination oil distillate, 50 percent.

Residuum, 25 percent. First product to be redistilled into gasoline and benzine.

Second product to be redistilled into about 90 percent illuminating oil and 10 percent benzine.

Third product to be redistilled into lubrication oil, which will yield by pressing paraffine wax, or will make about 15 percent vaseline. Absolutely no asphalt in the oil.

On account of smallness of amount used, allowances must be made for variations.

Hill, Louis Hagan, E. H. Kramer, J. B. Toplitz, Nat Boas, John Choice, Emile E. Kahn, Frank R. Lewis, H. S. Coffin, I. Kaufmann, J. L. Ewen, H. A. Marvin, Sim Mack, G. Grenner, I. J. Well, A. M. Bender, Charles E. Dugan, C. M. Kilbourn, H. C. Cutting, J. L. Joseph, J. C. Sala, George W. Ellery, W. C. Wise, Jesse S. Andrews, E. W. Elliot, William Minto, J. M. Reuck, E. Davis, Phil. S. Montague, W. H. Hannon, J. M. Merrill, J. G. Clark, W. J. Harris of Carson City, Nev., A. L. Hudgens, C. M. Phillips, Rudolph Sampson, Joseph Kahn, G. L. Bresse, R. L. Cheney, H. F. Lange, C. H. Phillips, S. D. Forman of Tonopah, M. R. Averill of Tonopah, Clyde Jackson of Tonopah, P. D. Kahn, R. Larreson, C. D. Van Duzer of Tonopah, W. P. Leech, D. G. Doubleday, J. M. Smith.

The first contribution of the



## RUSSIAN LAWS.

## Rules Regarding the Transport of Benzine in Bulk.

The Russian railway authorities place inflammable substances transported by rail under two heads—highly inflammable substances requiring extreme care during transport, and those requiring less attention. The first-class comprises benzine, gasoline, schandorine, and volatile petroleum products, with a flash point under 28° centigrade, Abel-Pensky apparatus, under 760 m. m. pressure. The second-class consists of crude oil, kerosene, solar oil, and other inflammable petroleum products, with a higher flash point above 28° centigrade, and the latter could only be transported by tank-cars in bulk, the first-class being transported in iron casks or specially-constructed wooden barrels. This regulation was modified when benzine and ligroine for export were allowed in bulk in specially-constructed tank-cars. In 1901 all restrictions were removed, and now it is merely a matter of finding the safest and most economical method of delivering these volatile products. The regulations formerly in existence were the chief obstacles against the development of the Russian benzine trade abroad, and the producers now hope to largely increase their trade in this direction. The difficulty of finding a sale for benzine and kindred products frequently necessitated the storing of large quantities of this highly inflammable product on the different properties, and naturally this greatly increased the chances of fire. It is generally admitted that the tank cars in use for crude and refined oils are not adapted to benzine and other volatile products. The following regulations as to the construction of tank cars intended for the transport of benzine (including ligroine, petroleum, ether, schandorine, gasoline, neoline, and Sourakhani crude) have been compiled by the Ministry of Ways and Communications:

Specially adapted stopcocks must be attached to the benzine tank-cars.

Special shutters to prevent leakage.

Special escape holes, easily plugged, similar to those at present on kerosene tank-cars.

No brakes to be attached to benzine cars.

No wooden parts in the construction.

Must be painted white and labelled "Benzine."

Each tank-car must be tested with benzine before coming into general use.

The loading and unloading of benzine tank-cars must take place on land apart from dwelling houses and other stored petroleum products.

Such loading and unloading must take place exclusively in daylight.

Smoking near benzine stations is strictly prohibited.

Benzine must not be pumped, but allowed to flow by gravity.

Where the adjacent land becomes saturated with benzine, a plentiful supply of sand must be at hand for sprinkling purposes.

Frozen connections must in no case be thawed by heat from live coal, but by steam or sand.

Benzine gas should be removed by opening the tops of the cars and opening the valves; if this is insufficient, the tank should be washed with cold water.

No cleaner should be allowed to enter a benzine tank-car until twelve hours after the car has been emptied.

The superintendent of the loading or unloading station will be responsible for the carrying out of these regulations.

## A Patent Tank-Wagon.

A recent English invention is the Davies patent tank-wagon, which has now been in use for several months, and has amply fulfilled all that its inventor claimed for it. The general features are the substitution of nickel steel for wood in the structure. In consequence, with the exception of wheels, shafts, and a portion of the under fore-carriage, the structure is of light steel, a singularly suitable material for the work to be performed, seeing that the oil prevents corrosion, and so disposes of an objection which might otherwise exist. The system of distributing the strains throughout the structure is novel and somewhat ingenious. The disposition of the axles and wheels, the proportions and resilience of the springs—also important features—were only adopted after much calculation and numerous experiments with models and actual examples. Important economies are possible in horseflesh and increased expedition of distribution and annual upkeep charges.—Petroleum.

## To Oil Colorado Railroads.

Arrangements are now being contemplated for the laying of dust by means of oil on most of the Colorado railroads in the summer time. It has already been announced by the passenger department of the Colorado and Southern railroad that this movement would be inaugurated with the coming tourist season, or earlier, if possible, in conjunction with the corresponding department of the Santa Fe Railroad towards sprinkling oil on the road bed on the road bed between Denver and Pueblo. Boulder oil will be used for this purpose, and special tank-cars will be built.

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## A Wonderful Product.

We admit that many persons have given to oil fuel heat-producing and other values—the results of laboratory tests—that have never been obtained in the commercial world, and have attributed to it merits which are chimerical and cannot be commercially realized.

Oil is, however, a wonderful product of nature. No substance under the sun yields such a number and diversity of useful articles.

The list is a revelation. Nearly two hundred merchantable wares, ranging from kerosene to lamp black, are derived from the greenish liquid. They include illuminants, lubricants, cosmetics, salves, waxes, liniments, carbons, soaps, and—chewing-gum! Housewives seal their fruit-jars with paraffin. Wax tapers at St. Paul's and the Brompton Oratory, sacred oils on the altar of the Vatican, and candles that flicker in countless humble homes are the offspring of Baku and Pennsylvania crude. On the general subject of the utility of oil as a fuel Sir Fortescue Flannery put the case very fairly when he said: "The practical figures of comparison between coal and oil fuel realized in recent practice are that two tons' weight of oil are equivalent to 67 cubic feet of coal as usually stored in a ship's bunkers." In other words, oil as compared with coal, gives 35 percent greater range of action for a ship upon a fixed bunker weight, while the stowage gain—the coal bunkers filled with oil instead of coal—is quite 90 percent. The wear and tear upon the boiler structure is probably less than with coal. Much of this wear and tear with coal is due to strains produced by the sudden and frequent intrusions of cold air against the hot plates; this often results in a leakage at the seams and ends of the tubes with small fractures of the boiler plates. These are almost entirely avoided by using oil fuel; the doors are never opened, and as the temperature remains practically even, there are no injurious contractions.—London Petroleum.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## Few Comprehend.

There are few who comprehend the fact that the oil business, as a great industrial enterprise, is yet in its infancy. Such, however, would seem to be the case since the discovery of rich, high grade oil fields in Kentucky, Utah and Wyoming, and the acquisition by the United States of the Philippine and the Hawaiian islands, to say nothing of China and Japan, which furnishes a demand for more oil of the high grade kind than this country can now supply. California alone demands more high grade oil than is produced within her borders, on account of the immense value of oil as a heating, lubricating and illuminating, expense-saving agent and the constantly increasing demand. New corporations have been formed from time to time to engage in securing new oil fields and operating oil wells, some of the choicest of which are now located in Kentucky. Pennsylvania and Ohio no longer dominate the oil market, nor can Texas, with her low grade asphalt-base fuel oil, supply the demand now steadily increasing for high grade illuminating and lubricating oil.—Journal for Investors.

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SATURDAY, APRIL 11, 1903

It is now certain that one of the most important oil fields in the United States is in process of development in Wyoming.

Already the oil industry there has passed the experimental stage, as wells have been developed which in the quantity and quality of oil produced give them rank among the most valuable of any oil district, the wells being able to easily produce from 200 to 400 barrels a day, and the oil being of a quality that makes it most desirable and valuable for refining purposes.

Already the assured future of this valuable field has proved an incentive to scheming speculators to devise schemes to delude the public and to fraudulently obtain money by false promises, lying prospectuses and circulars issued for stock schemes.

It is worthy of note that the Evanston Oil Stock Exchange has taken measures to stop these stock-jobbing enterprises, and will expose any attempts that may be made to thus injure legitimate oil business, and destroy the reputation of this new and promising field.

The United States naval authorities should follow the example of the British admiralty in giving fuel oil a practical test on their battleships.

It is true that tests are being made of liquid fuel by our naval authorities, but they are not on a par in extent and thoroughness with those made by England.

Our tests have thus far been confined to Texas oil, and the tests were not practical in that

they were land tests, made to be sure with marine engines, but made on land, where the peculiar conditions incident to the use of liquid fuel on steamers and battleships were lacking.

There is no reason why every government steamer in use on the Pacific Coast should not burn oil. Certainly there is no lack of oil, and with the oil developments now being made in Alaska and in South America a supply of oil can be established at any desired point much more easily and cheaply than could a coal supply.

There is no reason why all our revenue cutters should not be at once changed into oil-burners; and if such a change is advisable in the revenue service there is no reason why it should not be equally as desirable on the battleships and cruisers.

The tests made and being made by the British admiralty have all proved favorably to the new fuel, and there is every reason to believe that England will follow Russia in changing at least a good proportion of its naval vessels into oil burners.

America should not wait for England to lead the way in the march of improvements.

No one feature of the recent fuel shortage has been more notable than

## Oil Coming Into Common Use

the activity that it has engendered in the use of substitutes in the every-day economy of the home and the factory. The demand has amounted to something enormous, and the efforts of inventors have been bent to supply the need. They have turned to oil so generally as to indicate that in this direction will be found one of the resources that are to break the coal barons' monopoly, and, which will in the end, prove to add to the possibilities of cheap fuel. It cannot have escaped the observation of persons everywhere, and particularly in the Eastern and more thickly settled States, that new apparatus for the conversion of oil into heat are becoming more common. In every town there is some kind of an agency that proposes to introduce a new method. Lighting through the means of newly-invented lamps that transform the crude oil into the semblance of gas is also attracting more and more attention. In the western towns too small to have electric lighting plants the stores and many of the residences are thus lighted. In many of the larger towns the same condition exists, the new methods making the oil lamps so much cheaper than gas or electricity that the store-keepers can better afford to use the former.

In the widely-extended oil regions—and these are all the time being developed in new and un-

developed places—of course, the oil supersedes coal and wood almost entirely. The engines on the railroads that have connections with the great oil-producing regions are being equipped with facilities for burning the new fuel.—Bonds and Mortgages.

## THE SOUTHERN FIELDS.

The Condition of the Oil Industry Is Very Satisfactory.

The monthly oil report covering the conditions at the close of March indicates that the industry is in a healthful and prosperous state. The steady upward trend in the past six months has given operators more confidence, and has permitted the widening of the field of operations. The end of this pleasing feature is not in sight, as with the rapid expansion of commercial and industrial enterprises all over California, and particularly in the southern portion of the State, the consumption of the crude product must be greatly increased. This is the natural outlet for the oil, as the exports, while increasing, bear a small per cent to the amount that is used in shop, factory and on railroads. Firmness is indicated also in prices. The day of making concessions is gone, as not a barrel of surplus oil can be found, while those who own or control tankage have set ideas upon prices.

Those who held to the rudder when the period of distress came now seem within sight of a safe landing. The Los Angeles Herald says: There were many who lost by careless or hasty investments, and even some prudent persons were submerged in the swirl of wildcatting, but the concerns that laid their operations upon the solid foundation now find that profit is returning. This condition is noted in every field of importance in the State.

A factor that reflects a better era is the firm tone pervading oil shares of corporations that appear upon exchanges are in the hands of brokers. Their popularity is attested, as they are now more sought than in the days of a few past years.

Advances are found even in the stocks of smaller concerns that were buffeted and driven to the shore. That this should be so is proved by the earning capacity of the stock, for in many cases persistent effort has reduced obligations, and the period for "velvet" does not seem far distant. From indications the native industry that sustained California in periods of distress is again on the eve of adding greater coin to the realm.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## Oil Industry In Kansas.

The oil industry of Kansas and the Indian territory has assumed such large proportions the past six months or more than the Standard Oil company's present facilities for handling and storing oil are proved far inadequate to handle the oil produced, and plants are now being considered to greatly enlarge the Standard's refining interests in this State.

The preliminary steps have already been taken, and include the putting in of 40,000 barrel storage tanks at both Chanute, Neodesha and Bartlesville. Mr. Evans, manager of the Prairie Oil & Gas company, states that the three tanks would be put in at once. The tank for Neodesha is already on the ground, and the tank for Chanute has been shipped from the East and should arrive inside of two weeks. It will be located alongside of the big tank already there.

The Standard people storage facilities have been so taxed that no oil is being received from Bartlesville at all and none is being pumped from Chanute at the present time. "We will begin pumping Chanute oil again in about a week," Mr. Evans stated, "and we will probably be able to handle Chanute oil continuously from that time, in view of arrangements we have made at the refinery, though possibly part of the time not at our full capacity."

In regard to refinery enlargements, Mr. Evans stated that the question was now being considered by the company and that a decision would be reached regarding same sometime early in April, possibly by April 5th. As to whether the Neodesha refinery would be enlarged or a refinery be built at Chanute, he stated that all he could say was that the question of enlarging Kansas refinery interests was being considered by the Standard company.—Chanute Daily Tribune.

## New Company.

Santa Paula Saticoy Oil company. Principal place of business, San Francisco. Capital stock, \$100,000, with \$500 subscribed and Anthony C. Hellman, William H. Morrow, Burnette G. Haskell, Sidney V. Smith, William A. Costello of San Francisco, directors.

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**WEST. UNION NOT SOLD****A NEW INVENTION.**

**Pacific Oil and Transportation Company Refuses to Purchase.**

Some months ago the Pacific Oil and Transportation company secured an option to purchase the property of the Western Union in Santa Barbara for \$1,425,000, the option being given until April 1 of this year, at which time the Pacific Oil and Transportation

Machine that Sprays Cold Crude Oil on the Streets.

A new invention has been evolved from the brain of a Hanford man. It is the idea of Edward Kauntze, manager of the Robertson & Rawlins interests at Hanford, and the invention is a machine designed for the purpose of applying heavy crude oil to

tained in the assembling of the parts the "pull" on the motive power—the wheels, is reduced to 128 pounds. At the rear of the outfit is a pipe arranged horizontally to the wagon, six feet in length, perforated with thirty-two holes one-eighth of an inch in diameter, through which the oil is forced.

The test made of the machine was made with water instead of oil, and the test proved the practicability of the invention. The wagon was drawn by four horses, and the gauge showed that the pressure registered about forty pounds. The horses had to pull pretty well, and when the machine gets to actual road work on soft ground it will require eight good horses to handle it, but the test would indicate that it will do the work all right. The present machine is crude in construction, and simply shows that the principle upon which Mr. Kauntze has been working is a practical one.

**Midland-Pacific.**

It has been reported that the Midland-Pacific contractors who have been grading on the Cuyama will finish their contract about the 15th of this month.

The railroad engineers have completed a survey from Santa Maria as far north as the Grover tract but have received instructions to break camp and go to Cuyama where they will be en-

gaged for some time in running the line through the narrows; that having been considered the most feasible route out of the Cuyama.

Promoter Isaac B. Blake is now in the East, presumably on a quest for more cash to continue the work.

A barren tract of land near Summitville, Ind., was assigned to Mrs. Relfe in the division of an estate. She was not pleased with this division and protested vigorously, but was only laughed at. Lately a 600-barrel oil well was brought in on the property, yielding \$2,000 a month. The other heirs are still raising corn and potatoes and hogs for a living.

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Refinery and landing of Pacific Oil Transportation Co. at Gaviota.

company was either to furnish the cash or the deal was to be declared off.

The deal is off. The company does not want the property at the price, and is content with its contract to purchase the oil furnished by the company at a stated price for a given period.

At the present time the company is obtaining from the Western Union, through the pipe-line recently laid by the Pacific company oil to the amount of 500 barrels a day, which is delivered to the refinery at Gaviota.

This is about all the oil that the Western's wells can produce, as the fourteen wells of the company are not averaging over fifty barrels a day, if they are that, contrary reports notwithstanding.

The oil is of 19° gravity, and is passed through the refinery at Gaviota, the lighter elements being taken out so that the oil as shipped away, mostly to the Islands, averages from 14° to 16° gravity.

The company has a contract for 150,000 barrels, which at the present rate of production, will consume nearly a year in delivery.

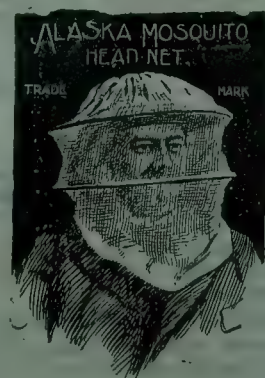
The Standard Oil company has given notice that employees who have been continuously at work for over thirty years in the refineries of Long Island city, Greenpoint and Williamsburg, may retire March 31 on half pay. It is thought that about 200 men at those refineries will be entitled to take advantage of this pension. The retirement is not compulsory.

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roadways and streets without heating. The idea contemplates the application of air pressure to the sprinkling apparatus, thus distributing the oil out into the roadway with sufficient force to penetrate the sand and dirt, direct from the tank of the wagon. The old plan of oil sprinkling with heavy oil necessitates the heating of the oil before it will work through the sprinkler, and even then it falls with its own inertia upon the soil. Mr. Kauntze is working to overcome this by applying air pressure to the discharge, forcing the oil through the sprinkler pipe and into the dirt. The Hanford Sentinel says that the machine is simple, and can be attached to any tank-wagon, and consists of a system of cylinders, levers, sprockets and chains, all worked from the rear wheels of the wagon. The scheme as at present designed places two eight-inch cylinders underneath the tank, and these cylinders are connected with the tank supply with valves that open and close with the working of the pump so that when the pressure is applied to the sprinkler the valves cut off the pressure in the tank. The pumps are worked with a lever eight feet in length and the power is applied to the lever from a sprocket wheel geared to each of the two rear wheels of the wagon, the mechanism being so arranged that there is a spiral escapement in the sprocket shaft to protect the operation when the wagon is turned and one wheel revolves more slowly than the other. Ordinarily there is 800 pounds pressure to the square inch in each cylinder, and by the leverage ob-

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

The new oil refinery on the canal at Fruitvale is rapidly nearing completion. The electric light plant is being installed this week, and it is expected that the works will start refining oil Monday morning, with an actual capacity of 125 barrels a day. The plant has its own water works and its own sewer system. The storage tank, with a capacity of three carloads, is situated underground, a novelty in refining works. The plant will turn out stove and engine distillates, paint oils, asphaltum and lacquer only at first. The by products will be manufactured later, when the works are running in full blast.

### COALINGA.

Hanford has started well No. 3. The Blue Diamond is not doing any work at present.

The Maine State is drilling another hole on its lease on section 31.

Independence is deepening well No. 1 and is about to commence well No. 8.

Oil City, well No. 6 has been completed at 1,300 feet, and well No. 7 is started.

Drilling on well No. 3 of the Fresno-San Francisco Oil company was begun on the 7th inst.

The Grant quit work on its well on section 23, which is down about 500 feet about a month ago.

The Confidence has been cleaning out some of its wells, but has not done any boring for over a year.

The Chicago Limited No. 1 has been drilled to a depth of 2,800 feet and the company is still drilling.

Fayna well No. 3 is making excellent progress, and is down 600 feet. This is expected to be a deep well.

The Pennsylvania-Coalinga company's last well, it is claimed, will yield about 1,000 barrels of oil per day.

Work on section 28 is being rushed, as the Standard Oil company will be buying oil within sixty days.

The Plymouth Consolidated company has lately put up a new rig on section 32 and will soon commence drilling.

The company operating on section 31 under the management of Capt. McClurg, is just finishing a fine well.

The El Zumia company, which already has two good producers on section 31, are making preparations to bore another hole.

The Caledonian Oil company is pushing the work rapidly on one of its wells, and are down about 600 feet and have a slight showing of oil.

The Rhode Island-California, drilling east of the field, has one well down 1,800 feet, with a small showing of oil, and will drill another well.

The Esperanza has ceased drilling operations for the time being, and is at work pumping in the two fine producers which have been completed.

The El Capitan property and stock has been sold to some eastern parties, and at present it is not known whether they will commence drilling operations very soon or not.

Mr. Scott Blair has taken an option of the N. E. 1/4 of section 22, 20-14. Messrs. I. L. Bryner and Julius Fried have leased the N. 1/2 of the S. 1/2 of section 25, 20-14 from the S. E. R. R. company.

The Southern Pacific company now has a gang of men at work grading the sites at Ora station where two 55,000-bar-

rel tanks will be erected in which to store the royalty oil which the company receives.

One more 35,000-barrel tank is being built by the Pacific Coast Oil company. This will be situated near the S. E. corner of the S. W. 1/4 of section 6, 20-15, ten acres having been procured by them for that purpose.

The Home and Coalinga Oil companies at Oil city have not been drilling for some time. Both of these companies have fine wells that produce the best oil in the State, and they have the pumps continuously in operation.

The Commercial Petroleum is still working on well No. 2. Two years were spent by this company on well No. 1, with which they had a great deal of trouble, but it finally became a fine producer. This company is also located on section 31.

Well No. 1 of the St. Paul company has been spoiled by having drilled too deep and penetrating a water course, and thus allowing such a great volume of water to flow into the well that nothing can be done, but well No. 2 of this same company is supposed to be a fair producer.

The constantly increasing demand for bricks in this field has resulted in the establishing of a brick yard by J. W. & C. J. Craycroft. The firm is known as the Craycroft Brick company, and the yard is situated west of the machine shop. Work for orders of the first one-half million was begun this week.

Well No. 6, 28 Oil company, flowed 250 barrels per day for eighteen days, and was then shut off, as every tank was full, and no tank cars could be obtained for shipping. Four days later it blew off the capping, and the oil flowed to waste. Twenty-eight well No. 7 is down 700 feet, and work has commenced on No. 8.

### COLORADO.

Although there has been little talk of late about the Boulder, Colorado, oil field, and the excitement of last winter has subsided, there is still work steadily in progress in the oil fields, and a considerable amount of Denver money is being invested in the sinking of wells and the securing of oil leases.

### HALF MOON BAY.

The Tesla company have their hole straightened out, and are going on with their work.

The Independent Oil company will begin work some time in May on the Tunitas Creek.

The San Mateo County Oil company are pounding away, and making fair progress at about 1,250 feet.

The High Gravity Oil company started up work last week. They were obliged to close down on account of bad roads and inability to get pipe.

C. W. Dickinson, of La Crosse, Wis., is here in the interest of the stockholders of the Wisconsin company, and is well pleased with the prospects and the company's flowing well.

The Paxton Gold Bond Oil company found the formation so favorable that they have concluded to pull their 7 1/2 casing and lower their 9 1/2 casing to a thousand feet, and they will proceed with their drilling.

### INYO.

The Roosevelt Oil company, drilling about nine miles south of Owens Lake,

have drilled nearly 1,000 feet, and have excellent indications. The company controls a vast territory, and if oil is found will have a good proposition. The well is distant nearly seventy-five miles from Mojave, the nearest station.

### KERN.

The California-Sedalia's well No. 6 at Sunset is now reported to be in oil sand with a good outlook.

The Kern King Oil company, located on section 25-28-27, at Kern river, is erecting two large storage tanks on its property.

Secretary Weaver of the Pittsburg Oil company has been busy paying out the first dividend of the company, 2 1/2 cents per share. This company has paid five 1 cent assessments.

The Amazon Oil company has leased to the Nevada County Oil company the north thirty acres of the southwest quarter of southeast quarter of section 30-28-28 for eight years at one-third royalty.

The Capital Oil company, one of the pioneers in the Kern river field, is about to resume operations on its property on 22, 28-27. The company is now rigging up with a hydraulic rig and it is said will drill to a depth of 2,000 feet if necessary until oil is found or its absence on the land fully demonstrated.

The California Combined Oil company is progressing well with its well on section 7-28-28 at Kern river, and is now down about 1,200 feet and in seventy feet of oil sand. Two hundred feet of oil is now reported to be standing in the casing. The present work has been accomplished within thirty days' time. —Californian.

The Standard Oil company expect to build a large reservoir at McKittrick soon. It will be 400 feet long and 150 feet wide 150,000 brick and 5,000 tons of cement will be used in finishing up the inside. It will be twenty feet deep. W. Morgan has the contract to do the grading, and will employ about thirty men and a large number of teams.

The People's Oil company has made application to the court to dissolve its organization. The enterprise was started to develop prospective oil lands on the desert, but since others failed to meet with success the local company decided not to squander any good money. The balance, the major portion of the funds subscribed—will be returned to the stockholders.

The sale of 33,000 shares of the capital stock of the Minnehaha Oil company is reported. The Los Angeles Building

company was the purchaser, and the consideration named was \$20,000. The Minnehaha company is one of the operators of the Kern river field, and is located on section 19-28-28, adjoining the Sinnohoning, the California, the Petroleum Center and others.

The Potomac Oil company has issued its annual statement, showing the financial condition of the corporation at the close of business on January 15th. The company is the owner of a tract in the Kern river field and also has holdings in the Los Angeles district. Under the head of income are the following items: Oil sold (142,547 barrels), \$26,289.40; oil on hand, \$1,500; total, \$27,789.40. Under the head of expenditures are operating expenses, \$14,425.94; dividends, \$3,178.35, and gain, \$9,486.67.

The annual meeting of the stockholders of the Superior Oil company was held last week Monday, over three-fourths of the issued stock being represented by the owner or by proxy. The selection of a new board of directors resulted in the election of the following named gentlemen: C. L. Clafin, Joseph Redlick, L. W. Lowell, E. W. McCutcheon, J. W. Crosland, G. W. McCutcheon and F. M. Carlock. R. S. Aston, who has been president of the board since the organization of the company, will be absent from the city for some time, hence declined a re election. The new board will shortly determine whether or not the company is to resume its development operations in the Sunset field. Two or three wells have been drilled down into the oil sand, but are not yet completed.

The revival in oil is causing a number of companies to levy assessments as well as to pay dividends, on account of the resumption of work in many cases on property long suspended. Among those Kern county companies, says the Californian, now publishing notices of assessments are the S. P. Oil Mining company, 1 cent per share, payable to Secretary B. L. Brundage until Monday, the 20th inst.; the Bald Eagle Oil company, 33 cents a share, payable to Secretary William Lange at his office in the Hayward building, San Francisco, before May 14th; California Combined Oil company, 2 cents a share, delinquent May 11th, payable to Secretary J. H. Edson in Oakland; Provident Oil Mining company, 1 1/2 cents a share, delinquent May 7th; Kern Canyon Oil company, 5 cents a share, delinquent on April 27th; Hanford-Sanger Oil company, 2 cents, delinquent April 30th; The La Corona Oil and Asphalt company is advertising

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- Press Notes.
- Expert Report.



shallowest stock for sale, the sale to be on the 15th inst.

On March 10 the stockholders of the Peerless were given the opportunity to buy stock in the new Fullerton oil company at Sunset. A block of 20,000 shares was offered at \$2 a share until April 1. By that time the Peerless stockholders had sent in the money for the purchase of 29,111 shares, and those not Peerless stockholders had applied for 1,200 shares, making a total of \$60,622 paid in. As this was a big oversubscription the directors have offered either to return the money over the amount necessary for the 20,000 shares offered, or will, if so ordered, apply the surplus to the purchase of the second block of stock at \$3. Most of the stockholders have already agreed to the latter proposition. The 20,000 shares of the first block was distributed pro rata. This is a unique experience among those offering stock for sale, and speaks well for the management. Well No. 1 of the Fulton is now being drilled 200 feet from the flowing well of the Maricopa in Sunset. The company's plan of operation comprises the drilling of thirteen wells along a line 100 feet east from the west boundary line of the property, the construction of two 100,000-barrel reservoirs, and the construction of water plants and oil lines, also the construction of proper buildings.

#### SAN LUIS OBISPO.

B. Pezzoni and A. Tognazzini, wealthy ranchers near the southern boundary of San Luis Obispo county, have organized a company, composed chiefly of ranchers and dairymen, and will drill at once for oil. Their field is in the neighborhood of the Casmalia Oil company's wells.

Representatives of John M. Wright, president of the Peerless Oil company, who recently purchased oil property in San Luis Obispo county, are now putting up a rig, and will be at work within thirty days drilling a well. The property is on the Carisa plains west of the Cuyama district and in the territory to be opened by the building of the Midland Pacific.

#### SANTA BARBARA.

For many years things have not been as dull at Summerland in the oil business as they are at this time. In the past the Summerland field has been kept alive through contracts made with the Oxnard Sugar company's people. The factory at Oxnard has paid as high as ninety cents per barrel for oil from Summerland taking all of the output of the field. But this year the Summerland wells lost the contract probably by the dallying of some men in the field making the annual contracts, or rather in failing to make them. The Summerland people held out for 75 cents per barrel, and thought that they could get that sum. The result was delay and delay until the oil association of the Kern field got in ahead and made a contract for the whole consumption at the factory at 70 cents delivered in Oxnard. The blow to the local field may well be imagined as severe. The factory at Oxnard was really the only market for Summerland oil in large quantities, and the loss of this contract is the cause of the present dullness in the oil market, so far as local wells are concerned.

"Information confirmatory of the reports that the Casmalia Oil company had encountered a flow of liquid asphalt in boring for oil on the Arellanes ranch near Santa Maria reached San Luis Obispo to-day. After drilling to a depth of over 1,500 feet in the hopes that a great oil reservoir would be tapped, the drillers of the Casmalia company have been rewarded by striking a deposit of liquid asphalt which the company believes will be even more valuable than an oil gusher. President Tom Ferguson of the company states that accompanying the strike of asphalt a heavy flow of nat-

ural gas was encountered, which is so strong that it is forcing the liquid asphalt to the surface at the rate of several barrels a day. President Ferguson has secured several hundred barrels and as fast as the product is forced to the surface, he is running it into these barrels. He expects that the gas pressure will give out within a short time but he is now preparing to run a small pipe down the hole and by sending steam to the bottom, hopes to force the oil in this manner. Some months ago the drillers on the Higgins ranch in the Carpinteria valley struck such a deposit while drilling for oil, and after experimenting in various ways, found it to be impracticable to work the well. After sinking several thousand dollars in the project it was abandoned entirely. But stockholders in the Casmalia are confident they have struck a good thing, and will spare no expense to develop the discovery."—Breeze.

#### SANTA CLARA.

Senator Thomas Flint, Jr. states that oil developments near Sargents will soon be made on a large scale. The well of the Watsonville Oil company that is now producing 100 barrels a day has given a great impetus to this field where wells have been drilled to practically no purpose for three years. A new company, at the head of which is John Martin, President of the Martin Pipe & Foundry Co., North Shore Railroad company, and California Central Gas & Electric Co., has secured a large tract of valuable oil land near Sargents, and will soon commence drilling operations on a large scale. Other companies are being formed for the same purpose, and the Sargent field is liable to take an important place among the oil districts of the State before the close of the year.

#### UTAH.

It is reported that work is to be resumed soon at the New York-Utah company's oil well in Clark's valley.

The two oil-boring rigs near Sunnyside will be set in motion this month—just as soon as the disappearing snow will permit.

At Desert Switch the Burns-Davis rig keeps boring steadily, and is getting close to that depth where a flow of oil is expected to reward the company's efforts.

The Price Oil company expect to start something going soon. It holds a good tract of land near Sunnyside, and Morris Sommers, of Salt Lake, one of the largest stockholders, has the promise of a bunch of eastern capital to put on a rig soon.

#### VANCOUVER.

The Canadian Oil and Mines, Limited, Vancouver, B. C., is stated to have struck rich oil deposits in the Coal Oil Creek district, about thirty miles from the Crow Nest line. The company is said to be arranging for the purchase or lease of 1,280 acres of lands in the district.

#### VENTURA.

Parties in from the district along the line of the Midland-Pacific report that about ten miles of grading has been completed by Contractor Waggy and the rest is being pushed rapidly. The surveyors are working in the vicinity of Santa Maria and after some trouble over the right of way the work is progressing well.

The directors of the Good Enough Oil company, a corporation composed of a number of Bakersfield citizens expecting to operate in the Cuyama country, have elected J. S. Drury to fill a vacancy on the board. The present officers and directors are: J. M. Goode, president; D. N. Alexander, secretary; J. F. Condict, William Bowman and J. S. Drury. The capital stock of the company is \$500,000 and those interested are all residents of Bakersfield. The territory to

be exploited is within the section to be opened by the Midland-Pacific.

A report has been brought from the Cuyama country west of Sunset that the Webfoot Oil company, operating on section 11, 9-24 in Ventura county, almost on the southern line of Santa Barbara county and about a mile west of the Kern county line, has struck oil in its well, getting for the twenty four hours a flow of 350 barrels. If true this should mean an excellent producer, although, of course, the first flow is always greater by far than the general average thereafter. The report is not officially confirmed yet but the Bakersfield Californian says it seems to be reliable. Parties in from that section brought the story. The company's property is located about fifteen miles southwest of Sunset in the territory adjacent to the route of the Midland-Pacific and about to be opened by that railroad. It is in the territory that has been very little explored for oil and is unproved, although indications are acknowledged to be excellent. The company has been at work for several months and is said to be guarding its property very closely and allowing no one to approach the well. The report is generally credited by oil men as to the amount of the flow. The Webfoot is a Los Angeles company with headquarters in that city. David C. Narver is president and F. W. Davis, secretary.

#### WHITTIER.

G. W. Brookins and M. W. Turner of the Turner Oil company were out to the wells last week.

C. O. Keiser has begun work for the Central Oil company, drilling on one of their new deep wells.

Reports from Murphy Oil company's No. 12, show that it is a wonder, flowing from 500 to 700 barrels per day.

The Warner and Turner Oil companies have contracted their entire output to the Union for three years.

Contract for No. 7 of the Warner Oil company has been let to Ike Collins and Ed. Martin. Work will commence at once.

The Murphy Oil company has grade finished for No. 15, and rigs completed for No. 13 and 14. Drillers commenced rigging thirteen last week, No. 15 is the first well on a new line parallel with others but about 100 feet south. No. 15 coming in between Nos. 9 and 10.

Whittier-Fillmore Oil company's well is pumping over a hundred barrels per day. This well and Murphy No. 12 are not up to capacity yet, the oil having been forced back and "chilled" by quantities of water used in drilling. By the Plotts' process, with which these wells were drilled, the hole is kept full of water. It is expected that their capacity will increase rather than diminish in the next few weeks.—Whittier News.

#### WYOMING

J. L. Fleming of Big Piney was in town Wednesday closing a deal with a New York syndicate on a tract of oil land.

It is reported that the Inter-Mountain Oil company have purchased five sections of land near Round mountain and will soon commence actual development work.

The Michigan-Wyoming Oil company, who have been shut down for a week waiting on casing received a carload last night and will commence drilling Monday morning.

Messrs. James J. Hardin and J. H. Price of the Jager Oil company are both reported sick at their homes in the East. They will come to Evanston to look after their property as soon as they are able to travel.

Upon an inquiry of recent date to Mr. Groshen of the Groshen & Carter Oil company, as to the value placed upon the old Carter property near Evanston,

he said that the property could not be bought for one thousand dollars an acre. The old Carter oil well is located on this property.

Messrs. Ellis and Nebergall stopped off here last week Saturday on business connected with their oil property. Mr. Ellis left for San Francisco after one day in the field; Mr. Nebergall will bring his family here and spend the summer in the Uinta oil field developing his property.

The Idaho-Wyoming Oil company are still closed down waiting for casing. This company have been waiting over six weeks for casing which was ordered six months ago. They have a fair showing of oil at the point where they stopped drilling but do not want to proceed without the casing and run the risk of a cave in or a fishing job.

F. W. Wyatt of Laramie, Wyo., is in Evanston looking after the interests of the Home Oil company which has valuable holdings in the Spring Valley district. He will spend several days looking over the oil fields and making arrangements to commence drilling operations. Mr. Wyatt is closely associated with Mr. Jager, president of the Jager Oil company.

Mr. W. J. Cashin is in receipt of a letter from Mr. L. L. Bettys, manager of the Bettys Oil company of Topeka, Kansas, in regard to the outlook of our oil fields. He reports great enthusiasm shown there over the class of oil found in the Uinta fields, and that stock is selling rapidly. The company is in a good financial condition and contemplates putting another rig in the field in the near future.

Henderson Bros., who purchased the oil fields of the Murphy company at Lander, Wyo., last year for \$100,000, have now twelve gushers on their property. They have been doing active work this spring and have so far struck two gushing wells. As fast as a flow of oil is struck the well is capped and the derrick moved to another location. A refinery is to be established later and all of the wells opened.

Our genial friend, Attorney R. S. Spence, has refitted and remodeled his office on Main street in up to date style. Mr. Spence's practice has grown to such an extent as to require this and we often see him burning the midnight oil attempting to cover his work. Mr. Spence is one of the largest land owners in the Uinta oil field and is associated with several oil companies, who will continue operations here this season. He has been foremost in Wyoming oil development and much of the success of recent date is due to his untiring efforts.

Some time ago United States Senator C. D. Clark of Wyoming, exhibited to Congressman J. C. Sibley, the oil king of Franklin, Pa., some samples of oil taken from the old U. P. well at Spring valley. Mr. Sibley took considerable interest in the matter and requested permission from Senator Clark to send the samples to Prof. P. H. Conradson, chief chemist of the Galena Signal Oil company, at Franklin, for analysis. The permission was gladly given and Prof. Conradson has just made his report, a typewritten statement profuse with figures and chemical terms but which in substance, proves the oil to be of the very highest quality, and Senator Clark is highly elated over the matter. Among other things the report states the oil to be very valuable on account of the large percent of benzine and illuminating oil, besides paraffine wax contained therein and it is mentioned that gasoline may be manufactured from the oil besides any number of other things, some of which, however, depend upon whether or not the locality affords facilities for the operation of certain processes. The oil from Franklin, Pa., where Mr. Sibley has made such immense fortunes, was thought to be the finest quality in this country but Prof. Conradson's report places Wyoming oil far ahead of it. Senator Clark professes great confidence in the future of his state as a producer of oil.



## OIL IN LOCOMOTIVES.

**Railroad Men Say It's as Safe as Coal, Maybe Safer.**

Some people have thought that crude oil should be prohibited in its use as fuel on locomotives because of the danger of explosion and easy ignition in case of collision or other serious mishap. The recent cycle of accidents throughout the country, particularly in the West, where everybody is quite familiar with petroleum, has seemed to accentuate the feeling against oil-burning locomotives. In one or two instances, the Los Angeles Times says serious damage from fire has resulted, and reports have made it appear that, immediately after the crash, burning oil was quickly hurled over the wreck and fiendish flames soon wrought complete destruction.

Experts have been discussing the danger of oil on locomotives lately, and their conclusions are to the effect that such fuel is not only not more dangerous than coal, but often much less so.

Said a prominent Southern Pacific official of the operating department recently:

"I am not taking to be quoted in the public prints, because the subject is somewhat technical and a trifle out of my line, but I do not hesitate for a moment in saying that the danger from oil as fuel on our locomotives is at a

minimum, and that coal is no safer. In fact, when emergency arises, the engineer or fireman can quickly turn a valve and instantly put out the roaring flames in the fire-box; whereas in the case of coal, there is always a bed of red-hot coals ready to make any accident a dreadful holocaust. Of course, the same thing might happen with oil, under the proper conditions, if the flow were not stopped and the flames could be fed from a bursted tank.

"Even then it might more often happen that the cold petroleum would extinguish the fire. Crude oil itself is not an explosive; when vaporized it will burn, but to vaporize it in the open is a difficult matter. Pour crude oil over a lighted torch, and the effect will be the same as if water had been used; plunge a lighted torch into a tank of crude oil, and the flame will go out instantly; no explosion will ensue; the flame goes out because the oil is of such consistency that it is with difficulty vaporized, while it can burn only in that condition.

"Before the Southern Pacific decided to abandon coal on its engines, some interesting experiments were made in Los Angeles at the instance of General Manager Kruttschnitt, who at first seemed fearful of imminent danger from the use of oil. These experiments, however, convinced him that the new fuel was in no way

an extra hazard to life or property.

"Of course, in a head-on collision, when two mammoth engines plunge into each other at terrific speed, they are quickly demolished, together with their tenders and everything else, while necessarily oil would be hurled in every direction—but seldom burning oil—and if fire broke out, the oil would very easily burn along with the inflammable debris. But there is the possibility of killing the flame in the fire-box that does not exist when coal is burned."

At this juncture it is interesting to know that an Arizona mechanic is working on a device designed to stop the flow of oil in an engine automatically upon the least disturbance indicating serious complications. Such an invention is greatly desired by both railroads and traveling public.

"The eye is the window of the soul." Let some light on industries into your soul by reading the prospectus of the New Franklin Oil and Refining company. It is an opportunity for safe, conservative investment.

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Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

Subscribe for the PACIFIC OIL REPORTER.

## Pipe-Line Assessed.

At a meeting of San Joaquin valley assessors in San Francisco last week, it was decided to assess the Standard Oil company's pipeline to Point Richmond at the rate of \$3,750 a mile, but the improvements, such as the pumping stations and telephone lines, are to be assessed separately from the line.

As the pipe-line is 278 miles long the assessment of \$3,750 a mile gives a total assessment of \$1,042,500. The other improvements will amount to nearly half as much again.

## Pacific States Mining and Investment Co.

This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work.

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## Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



**OIL IN TENNESSEE.**

**Recent Developments Have Opened Up a Big Field.**

Kentucky and Tennessee are so closely connected, and in geological formation so nearly related, that it is difficult to speak of the oil fields of one without mentioning the other also. Nearly forty years ago the first Tennessee oil wells were drilled and abandoned, and the work was not again taken up until thirty years afterward. The recent development has resulted in opening up a field along the north central border of Tennessee, and extending northeastward into Kentucky, which is said to be 25 per cent greater than the oil fields of West Virginia and Pennsylvania combined. It is predicted that within twelve months this oil field will be developed from two and a-half to three and a-half million barrels of oil. New wells are coming in every week, and some of them are reported as yielding from 200 to 300 barrels of oil per day.

The first Tennessee oil company began work in Overton County, Tenn., in the fall of 1865. This well, known as the Newman well, was bored to a depth of nineteen feet, near an oil seep from which oil had been exuding from time immemorial. Oil in small quantity was struck at this depth, and later the well was deepened to

twenty-six feet and 2,600 barrels of oil were pumped out. Sulphur water accumulated, and the well was abandoned until November, 1866, when it was drilled to the further depth of fifty-one feet seven inches. At this depth, says the Paint, Oil and Drug Review, the oil flowed out in great quantities, coming in a rush, and rising in a column thirty feet high. Thousands of barrels were lost, and it is said to have filled up a natural basin near the well deep enough to swim a horse.

The first attempt at oil development in Tennessee was a failure largely through lack of experience in handling the oil. The well continued to flow for three months. Twelve months afterwards the well was pumped and 600 barrels taken out. It was abandoned for a year, and then sunk to a depth of 126 feet, when gas was struck and the well permanently abandoned.

The oil seeps in Tennessee are in the central northern counties of Clay, Overton, Pickett, Fentress, Putnam, Jackson and De Kalb. These counties are in the same section with Wayne, Clinton, Pulaski, Cumberland and some other counties in Kentucky. The whole oil section is called the Kentucky-Tennessee oil field. The oil sands in this field are reached at the depth of from 250 to 950 feet, varying somewhat by the elevation of the place where the

well is bored. There are three distinct oil-bearing sands now well known, one about 240 feet, one from 450 to 500 feet, and one at 870 feet below the surface.

There are at the present time three Nashville companies operating in this field: The Mayfield Oil company, with leases aggregating 30,000 acres, the Fentress-Pickett company, with 1,500 acres in leases, and the Otley-McMillin company, with 7,000 acres in leases. The Mayfield company has five or more producing wells and the Otley-McMillin company three or more. There are now not less than 250 producing wells in the Kentucky-Tennessee field south of Cumberland River and in the territory tributary to Nashville. It is claimed by those who have the opportunity to know that there are fewer dry holes in this Kentucky-Tennessee field than in any other field hitherto developed in the United States, and that, on an average, the wells produce a larger amount of oil per well than the wells in Pennsylvania, West Virginia, Ohio and Indiana.

**In Indiana.**

It is said that the Ohio Oil company alone will drill over 2,000 wells in Ohio and Indiana. The American Window Glass Co., the Consumer Gas Trust Co., the Southwestern Petroleum Co., the Indiana Natural Gas Co., the

Manufacturers' Natural Gas Co., the Huntington Light & Fuel Co., the Eastern Oil Co., Argue & McKisson, Bellevue Oil Co., Venedocia Oil & Gas Co., Pittsburg Plate Glass Co., the Clover Leaf Oil Co., the Western Oil Co., and the Central Western Oil Co. will drill all the way from twenty-five wells each in Indiana to 300 or more wells, to say nothing of the large number that will be drilled by smaller companies and individual operators. Some predict that the close of 1903 will see from 5,000 to 6,000 new wells completed in Indiana for the year, and the figures may run above that.

A shoe factory making ten thousand pairs a day would be an elephant on your hands, if you had no market for your output. The New Franklin Oil and Refining company, has sufficient contracts to insure a maintenance of present profits. Let us send you a prospectus.

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By chemist and oil refiner, young, active, progressive and practical, position in California as foreman or assistant superintendent of oil refinery; has had six years' experience in the East. Reply

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**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

# Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

**Treasury Stock, - - \$350,000**

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Proven oil lands in Napa and Coalinga for sale cheap.

**AGENTS WANTED in All Large Cities for the Sale of Our All Refined Asphaltum**



# POLLUTING THE BAY.

Dr. C. T. Deane Says the Refineries Not the Cause.

Addressing the Chronicle, Dr. C. T. Deane, secretary of the California Petroleum Miners' Association, writes:

"The California Petroleum Miners' Association begs to state that they have made a very exhaustive inquiry regarding the pollution of the waters of the bay with oil debris, and find the following facts: The refinery at Point Richmond does not dump any oil or refuse into the waters of the bay, nor does any other refinery do so, for the reason that they have no refuse. Every particle of oil is used in refining and making other commercial commodities and any refuse left over is used for fuel; besides the refinery is distant over half a mile from tide water. Now the question naturally arises, How does the oil get into the water? This is very easily answered. It is absolutely impossible to handle crude oil on the bay in tank steamers making and breaking connections without some oil being spilled; the same occurs in tank cars at terminals.

"Some time since, when oil was being refined at West Alameda, the same claim was made, that the refinery was polluting the bay with their refuse oil. Since the abandonment of that refinery, over six months ago, the same condition exists, and there is as much oil floating in the Oakland estuary and adjacent shores today as there was during the operation of the refinery there. Whether any arrangement can be made whereby the leakage of oil from oil-burning vessels, tank steamers and a hundred other causes can be stopped, whereby small quantities of oil are spilled (and it only takes a very small quantity to cover a large surface) will be a question of experience in handling."

## Oil on the Caspian.

M. Eugene Dubief, a vice-consul of France in Russia, reports that not long ago there were 346 tankers on the Caspian used exclusively in transporting petroleum, and having a tonnage of 233,790. Over and above these special carriers, 134 steamers (tonnage about 130,000) and 212 sailers (tonnage exceeding 100,000) were engaged in the petroleum transport business. These figures have been slightly modified, five tankers have been wrecked, and five others have been converted into general cargo boats, while four new sailers have been launched, but sixty sailers, formerly employed in the petroleum trade, have been converted into general cargo boats. The cause of this is that the tonnage has exceeded the demand, a phenomenon which previously happened in 1897.

During 1899 the Baku tankers made 4,445 voyages as against 5,381 in 1900. The average weight per voyage in 1899 was 597,071 poods and 595,000 poods in 1900. A good tank steamer can make fifty-five voyages (Baku to Astrakhan) per annum. Sailers in 1899 numbered 189, and transported 22,498,000 poods of petroleum products with an average cargo of 28,900 poods per voyage. In 1900 they numbered 156 and transported 17,712,930 poods, or a little over an average of 31,500 poods per voyage. A pood weighs thirty-six pounds.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, April 8th:

### APOLLO.

100 at 40..... \$ 40 00

### CALIFORNIA STANDARD.

1,000 at 13..... 130 00

### FOUR.

100 at 70..... 70 00

50 at 65..... 32 50

### HOME OIL.

100 at 2 75 (S 30)..... 275 00

300 at 2 80..... 840 00

### INDEPENDENCE.

1,100 at 13..... 143 00

1,000 at 13 (B 60)..... 130 00

1,000 at 13 (B 90)..... 130 00

4,200 at 12..... 504 00

### KERN.

100 at 5 00..... 500 00

### KERN RIVER OIL.

10 at 13 00..... 130 00

50 at 13 50..... 675 00

### LION.

1,800 at 07..... 126 00

### MONARCH.

500 at 25..... 125 00

1,700 at 26..... 442 00

1,200 at 27..... 324 00

2,600 at 28..... 728 00

### OCCIDENTAL OIL.

1,000 at 17..... 170 00

1,000 at 16 (C)..... 160 00

### OIL CITY PETROLEUM.

500 at 30..... 150 00

### PEERLESS.

50 at 15 50..... 775 00

### PETROLEUM CENTER.

2,000 at 05..... 100 00

100 at 07..... 7 00

### REED CRUDE.

4 200 at 33..... 1,386 00

2,740 at 32..... 876 80

### SAN JOAQUIN.

50 at 6 12 1/2..... 306 25

### SENATOR.

50 at 65..... 32 50

### STERLING.

250 at 3 15..... 787 50

450 at 3 10..... 1,395 00

100 at 3 10 (S 90)..... 310 00

### TOLTEC.

600 at 17..... 102 00

### WOLVERINE.

1,000 at 50..... 500 00

31,000 Shares Amount \$12,402.55

### CONTRA COSTA WATER.

25 at 62 50..... \$ 1,562 50

### S. F. GAS & ELECTRIC.

50 at 57 00..... 2,850 00

75 Shares Amount \$4,412 50

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks. Bid. Asked.

Alma..... 1.35..... .40

Apollo..... .20..... .75

Asso. Oil Co. Stock..... .20..... .82 1/2

Trust Certificates..... .75.....

Aztec..... .75.....

Bear Flag.....	10	10
California Standard.....	10	15
Caribou.....	80	90
Central Point Con.....	70	85
Chicago Crude.....	25	25
Clairmont.....	27	27
Fauna.....	43	43
Four.....	75	75
Hanford.....	120.00	125.00
Home.....	2.75	2.80
Imperial.....	18.00	18.00
Independence.....	12	13
Junction.....	.06	.06
Kern.....	5.00	5.25
Kern River.....	14.50	14.50
Lion.....	.08	.08
Monarch of Arizona.....	.25	.26
Monte Cristo.....	1.35	1.35
Occidental of West Va.....	.16	.19
Oil City Petroleum.....	.30	.31
Peerless.....	15.25	15.50
Pittsburg.....	.40	.40
Reed Crude.....	.34	.34
S. F. & McKittrick.....	2.50	2.50
San Joaquin O. & D.....	6.12 1/2	6.12 1/2
Senator.....	.65	.70
Sovereign.....	.41	.43
Sterling.....	3.05	3.20
Superior.....	.09	.09
Thirty-three.....	8.25	9.00
Toltec.....	.17	.20
Twenty-eight.....	3.25	3.50
United Petroleum.....	118.00	118.00
Union.....	64.00	64.00
West Shore.....	3.00	3.00
Wolverine.....	.49	.55

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## NOTICE OF STOCKHOLDERS' MEETING.

Notice is hereby given that a meeting of the stockholders of the Sinaloa Mining Company has been called by resolution of the Board of Directors of said Corporation, adopted February 2d, 1903, which stockholders' meeting will be held on Monday, the 13th day of April, 1903, at the hour of 2 o'clock in the afternoon of said day, at the office of the company, room 26, eighth floor, Mills Building, San Francisco, California. The object of said meeting will be to consider and vote upon the question of diminishing the capital stock of the Sinaloa Mining Company from the sum of ten million (10,000,000) dollars, divided into one hundred thousand (100,000) shares of the par value of one hundred (100) dollars each, to the sum of five million (5,000,000) dollars, divided into five million (5,000,000) shares of the par value of one (1) dollar per share, to consider and vote upon the question of delivering to the holders of the shares of the capital stock of said company of the par value of one hundred (100) dollars, paid up shares of the par value of one (1) dollar per share; and to consider and vote upon the question of increasing the number of directors of said corporation from five (5) to seven (7) directors.


By order of the Board of Directors.

S. R. BREAK,

Secretary Sinaloa Mining Company.

Dated February 2, 1903.

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Visalia

Yuba

Kan. C.

Chicago

8:00 a

11:10 a

1:20 p

3:20 p

5:00 p

4:48 p

5:50 p

2:31 p

2:15 p

8:00 p

11:15 p

11:28 p

3:15 a

7:50 a

5:00 a

7:35 a

8:02 a

8:47 p

a for morning; p for afternoon.

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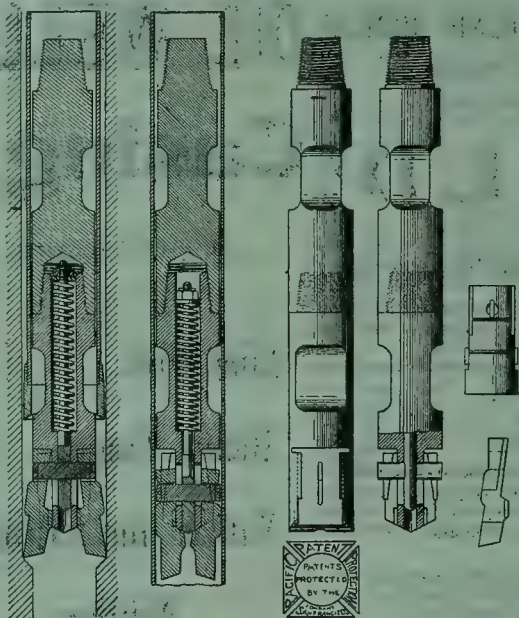
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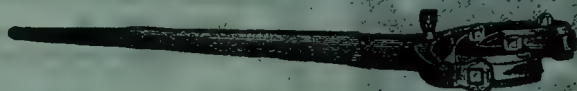
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Office 6, 7, 8 and 9 Rea Building, - - SAN JOSE, CALA.

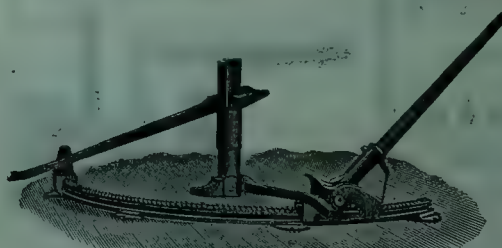
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 24.

SAN FRANCISCO, CAL., SATURDAY, APRIL 18, 1903.

Price 10 Cents.

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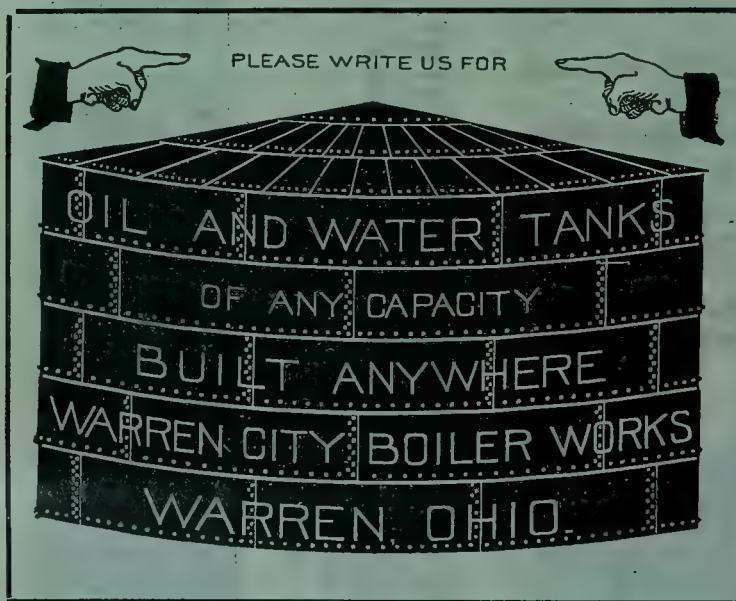
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# PACIFIC OIL REPORTER

VOL. 4. No. 24.

SAN FRANCISCO, CAL., SATURDAY, APRIL 18, 1903.

PRICE, TEN CENTS.

## CALIFORNIA REFINERIES.

**An Industry That Is Rapidly Growing In Importance and In Strength.**

**Over Thirty Refineries Are Now Treating California Crude Oil, and Are Making From It Many Articles of Growing Commercial Importance.**

Few even among those interested in the oil business have any idea of the number of oil refineries in California.

At the close of 1902 there were thirty-two refineries in California. To-day this number has been increased so that there are more than there were even four months ago, and before the close of the

were thirty-two refineries in the State. These had a total still capacity approximately of 31,575 barrels. Of these seven were located in the bay and tributary region around San Francisco, eight were located in the San Joaquin valley, four along the coast, twelve in Los Angeles and one at Chino. The location of the refineries

Union Con. Oil Co., Los Angeles, 1,078.

Meridian Oil Refining Co., Los Angeles, 300.

Tesla Refining Co., Stockton, 60.

Davis Distilling Co., Stockton, 607.

Sutherland Refining Co., Bakersfield, 1,000.

Puente Oil Refinery, Chino, 625.

Sunset Oil Refinery, Obispo, 2,400.

Alcatraz Refining Co., Gaviota, 1,350.

Jewett & Blodgett Refinery, Sunset, 200.

McWhorter Refinery, Bakersfield, 25.

Santa Paula Refinery, Santa Paula, 22.

Mercantile Oil and Refining Co., Stock Yards, Alameda county, 350.

least half a dozen refineries either in process of building or in contemplation of construction at an early date. Some of these are to be at Bakersfield, others at Los Angeles, and others at different points on the Bay of San Francisco near the lines of the Southern Pacific or Santa Fe railroads.

Of the refineries now finished those of the Pacific Coast Oil company, the Union Oil company of California and the Puente Oil company are the main manufacturers of refined oils for illuminants, naphthas and other light products, the other refineries confining their attention mainly to the manufacture of asphalt, distillates and lubricating oils.

The question naturally arises, when the number and capacity of all these refineries is considered,



Plant of the British-California Refining company at Los Angeles. This company has a present still capacity of only 200 barrels, but this capacity will soon be materially enlarged. The company has just added a new agitator, has increased the tankage by several thousand barrels, has built a new warehouse for asphaltum, and is now almost ready to place new stills. The officers are J. H. McNeil, president; F. R. Kellog, secretary; G. J. Symington, manager.

present year there will probably be almost, if not quite, forty refineries in this State, almost all of which will be engaged more or less in the manufacture of asphalt in addition to the lighter products of the oil. The refinery of the Standard Oil company at Point Richmond is the only refinery of any extent in the State that does not manufacture asphalt. This refinery goes one step further in the process, and instead of turning out its residuum in the form of asphalt treats it differently than the other refineries treat their residuum, and it leaves the stills in the form of coke, used for a variety of purposes, but mainly for fuel, and as such it is destined to play an important part as a successful competitor of coal, both for fuel and domestic purposes.

At the close of last year there

now in the State, with their total still capacities, is as follows:

Pacific Coast Oil Co. (Standard), Richmond, 20,000.

Union Oil Co., Oleum, Contra Costa county, 1,350.

Union Oil Co., Bakersfield, 1,550.

New Franklin Oil and Refining Co., Los Angeles, 750.

Asphalt Oil and Refining Co., Los Angeles, 480.

American Oil and Asphalt Co., Los Angeles, 1,150.

Hercules Oil Refining Co., Los Angeles, 1,200.

British California Refinery Co., Los Angeles, 200.

Pacific Oil Refinery, Los Angeles, 47.

Southern Refinery Co., Los Angeles, 800.

Densmore-Stabler Co., Los Angeles, 700.

Paraffine Paint Co., Emeryville, 350.

Pacific Refining Co., Bakersfield, 900.

National Oil Refinery, Rodeo, 600.

California-Fresno Refinery, Fresno, 250.

California Liquid Asphalt Co., Summerland, 250.

Columbian Oil, Asphalt and Refining Co., Carpinteria, 200.

California Asphalt and Refining Co., Sunset.

Queen Oil Refining Co., Sunset.

Navajo Refinery, Sunset, 150.

Clark Oil Refinery, Bakersfield, 287.

King Refinery, Bakersfield, 300.

Volcan Oil and Refining Co., Bakersfield, 300.

Knapp Refinery, Halfmoon Bay, 40.

Beside these there are now at

Is not the refining business largely overdone in California?

The answer to this question is both negative and affirmative.

Both answers would be correct, and each one requires considerable explanation.

As regards the manufacture of illuminating oil, the demand for kerosene is far greater than the supply.

The bulk of the kerosene consumed on this Coast is either the pure Eastern product, or else is the California product mixed more or less with the Eastern. Very little of it is the pure California kerosene. The reason of the mixture is that up to the present time it has been found almost impossible to refine the average California refining oil so that it will not smoke or give forth an offensive odor. The percentage of



illuminant in our California oil is very much smaller than that in the Eastern crude oil. It takes more barrels of California crude oil to make one barrel of kerosene than is required from the Eastern crude oil; consequently it costs more to make California kerosene than it does to make Eastern kerosene.

itself and carefully observes the motto, "Silence is golden." But it would seem safe to say the Standard Oil company would not have expended upwards of \$6,000,000 in a refinery, pipe line, tanks, steamers, etc., if they had not been perfectly satisfied that they could do something with our oil beside

of tank steamers to which it will constantly be adding. Beside the Standard is its most powerful competitor on the coast, the Union Oil company, which also has its hundreds of miles of pipe-line, its fleet of tank steamers, tank sailing vessels, barges, and which is increasing its refinery capacity in

ticle unless he has it to sell—as a rule.

Four years ago the oil producers were crying "over-production" when the total output was only 4,000,000 barrels a year. The calamity howlers said that more oil meant ruination to the oil industry. The wise ones went right along and produced more oil.

What was the result?

As soon as the railroads, the steamship companies, the large manufactories and the other large consumers of fuel found that the supply of oil was so great there was no danger of a shortage—then and then only did they commence to use it. By the end of this year the railroads in this State will be using 8,000,000 barrels of oil a year. Think of it. That is what the entire State produced only two years ago. As soon as it was evident that there was oil to be had and plenty of it then and then only did the big fuel consumers commence to use it.

The same is true in regard to the products of the refineries.

Take lubricating oil for example. Two years ago who dreamed that this State would produce enough lubricating oil for its own use? Most of it was brought in here from the East. How is it now? The most of this kind of oil used on the coast now



Plant of the Pacific Refining company at Bakersfield. This is one of the new refineries in the State. It has a capacity of 900 barrels, and has three stills. The officers are H. A. Blodgett, president; Colonel T. Spellacy, secretary; C. M. Beal, manager; R. S. Knight, superintendent.

Yet the demand for kerosene is so great on this Coast that every barrel of oil fit to be made into kerosene is in demand at a fair price. Although more barrels of our oil are required to make a barrel of kerosene than is required of the Eastern crude oil, yet the relative cheapness of our crude oil makes it possible to refine it to advantage.

The difficulties in the way of refining our oil are fast being overcome. It was not many years ago that Ohio and Indiana oil was regarded as of little account as compared with Pennsylvania oil on account of the difficulties attending its refining. It had the same defects as our California oil. It would smoke and it would smell. For years it seemed impossible to remedy these defects. But after hundreds of experiments, which cost thousands of dollars, a process was discovered by means of which Ohio and Indiana oil could be refined as satisfactorily as Pennsylvania oil.

The Standard Oil company has now on the shore of San Francisco bay, at Richmond, and practically completed, a refinery that is projected to be the largest in the United States so far as capacity is concerned. It has at present a still capacity of 20,000 barrels, but the refinery is built on a scale that provides for double and treble that capacity, and even more, by adding additional still capacity as required. Not only this, it is supposed that the chemists of the Standard Oil company have succeeded in perfecting a process by which they are enabled to refine our California oil so that the product is as perfect as the Eastern product.

Of course it is impossible to make this statement with absolute certainty. The Standard Oil company keeps its business strictly to

using it for fuel and refining an inferior grade of kerosene. The Standard wants to make the best of everything, and it would not have expended this vast fortune unless it had proved that it could manufacture the best, and manufacture it at a profit.

There is no doubt in the mind of the writer but that the Standard can refine perfectly not only the light Ventura oil, which has always been handled by the Pacific Coast Oil company, but also the light oils of the Coalinga fields and Fullerton, and also, unless all signs fail, the lighter oil of the Kern river field. If necessary, although this oil will probably be used for a long time principally for fuel purposes and the manufacture of asphalt.

Yet the Kern oil will play its part in the later refining processes, as the distillate remaining has a decided value, a value too great for it to be wasted. This fact has already been grasped by the Standard, the Union and the Jewett & Blodgett companies and the heavy Kern oil will be utilized to a greater or less extent in the refining of kerosene.

At present in the refining business there is a great and growing demand for the crude oil which is suitable more for refining than for fuel. Up to the present time the wells could supply without much difficulty all the oil that was needed by the refineries—all in fact they could take care of. Now the case is different. The completion of the great refinery at Richmond means a greater consumption of light, refining oil. Heretofore the transportation facilities were limited. Now comes the Standard with its great pipe-line from Bakersfield to the bay, with another pipe-line from Fullerton to San Pedro, with fleet

a manner undreamed of by the officers of the company even three years ago.

Are the refineries disposing of their product?

Yes, very rapidly. It is always the rule in business, especially in the manufacturing business that one cannot sell an ar-

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**Pacific Coast Headquarters**

**117 North Main Street**

**Los Angeles, Cal.**

Branches:

**Bakersfield and McKittrick, Cal.**





The Jewett & Blodgett Refinery at Sunset. This refinery will soon be enlarged so that in a short time it will have a still capacity of 1,500 barrels a day.

is the product of our own refineries, and the manufacture is rapidly growing to meet the increasing market that is rapidly opening up in the East, in the north, south and west across the Pacific.

Look at the table of exports published in this paper elsewhere. It is a revelation to those who have no idea of the importance of the oil industry. It simply shows how rapidly the oil business is growing, and yet it has hardly started; it is only in its infancy.

The table shows that in crude oil alone last month the exports amounted to 218,000 gallons, or at the rate of 62,000 barrels a year. If anyone had said two years ago that this was going to happen he would have been laughed at.

Of naphthas we exported 13,380 gallons—only a beginning; of illuminating oil 180,912 gallons. That sounds better. Of lubricating oils we exported 15,643 gallons.

The PACIFIC OIL REPORTER is the only paper that keeps a record of the oil exports from this

State, and this record will be a curiosity ten years from now in the way of contrasting our outside shipments with those of the present day. Contrast the shipments of March 1902 with those of March 1903 in gallons.

Yr. Crude oil	Naphtha	Illuminating	Lubricating
Mch. '02	4,190	32,770	1,504
Mch. '03	218,304	13,380	180,912
			15,643

If some mathematician wants to figure on this table and send us the data as to what the exports will be of oil from this port ten years hence provided the increase keeps up in the same ratio from year to year for ten years we will be much obliged. Our mathematics do not go that far.

This article is entirely too long already but we will run the risk of being called a crank on oil and just hint at the asphalt industry.

In round figures there were about 35,000 tons of asphalt refined in this State last year from crude petroleum. There may be 8,000 tons of asphalt stored in the warehouses now. Perhaps there is a good deal more. Asphalt men are growling because their asphalt meets with such a slow sale. They

say that in the East all that is heard of is Trinidad asphalt. We should not be surprised if that was the fact. The Trinidad men are full of hustle. They are organized for business. They have established agencies in all the large Eastern cities. They have supply depots from which they can draw any amount of asphalt they may want, and when they want it. They advertise well and liberally. If any town thinks of laying a pavement the Trinidad men are not slow in having it understood that their asphalt is the only asphalt in the market that is fit to use. They are knocking California asphalt every chance they get.

In California, from San Francisco to Los Angeles, and north as far as Portland and Seattle and beyond the asphalt men are knocked at every turn by the bituminous rock men who know that refined asphalt is as superior to bituminous rock as heaven is better than hell. Yet the bituminous rock men are now in the saddle. They have the money to

work with and to buy with for that matter, and they own the quarries of asphalted mud, and what do the asphalt men do about it? Up to this time they have either been attempting to cut one another's throats on prices or else fooling around fearing that some other asphalt man will make a dollar and leave them out.

Between the Trinidad men in the East and the mud asphalt men in California the oil asphalt men have had a hard time of it.

This state of affairs is liable to end very shortly. An arrangement has practically been perfected this last week which will change the existing state of affairs to a very marked degree. The result will be that in another year the Trinidad men will be placed in the position of defense rather than offense, and the mud asphalt men will be trying to get contracts for laying streets with oil asphalt. Already they are beginning to get their machinery ready for the handling of oil asphalt, and will be able to lay a street that will be smooth enough



Plant of Volcan Oil and Refining company at Bakersfield. This is one of the smaller refineries in the State, but will increase its capacity to meet the rapidly increasing demands for asphalt and the various distillates.





Plant of the New Franklin Oil and Refining company at Los Angeles. This plant is very rapidly increasing its still capacity and output.

to drive the President over if he should visit Oakland again, so that the committee will not be obliged to haul him from Oakland to Berkeley in a trolley car because the streets are too bad to allow any man to drive over them without danger of having his head jerked off on account of the holes in the City Street Improvement company's pavement. Nice streets we have here, and the company has reason to be proud of the money it has made out of them.

What we started in to say was that last year this State made 35,000 tons of refined asphalt, and that this year, 1903, the outlook is favorable for an output of 70,000 tons, if not greater by many thousand tons. We believe that the new arrangement, which will be in force in a few days, and of

which we will be able to give the particulars in a week or two at most, will result in a very material increase in the manufacture and sale of refined oil asphalt in the East and on the Pacific Coast.

#### The Beaumont Oil Fields.

According to the statistics of the Beaumont Daily Enterprise the shipments of petroleum from the Beaumont oil field from the 1st to the 30th of March amounted to 741,928 barrels. This is an average of 24,731 barrels a day. The Oil Investors' Journal says that on March 1st the field statistics showed 111 wells that were being operated. The production of thirty-one of these for twenty-six days in March averaged 11,250 barrels a day, or over 360 barrels to the well. This is certainly an excellent showing, and with oil at

70 cents a barrel the owners of these wells are making more money than oil producers anywhere else in the world. A number of companies continue to buy oil and store it for future uses. The stock now in storage in the field is estimated at 7,800,000 barrels and the production is placed at about 32,000 barrels a day. The original Lucas well has not produced any oil in over a year.

A shoe factory making ten thousand pairs a day would be an elephant on your hands, if you had no market for your output. The New Franklin Oil and Refining company has sufficient contracts to insure a maintenance of present profits. Let us send you a prospectus.

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This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work.

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## OIL ON RAILROADS.

## How Oil is Burned on California Locomotives.

Some interesting facts as to the complications and displacements, caused by the use of oil as fuel, have recently been brought to light. The great railroad companies see that oil as fuel will need to be carefully managed, and, while lessening labor, will demand greater skill than is necessary for the use of coal as the motive power. The Oakland Tribune says that in view of the fact that oil fuel will soon be used almost exclusively on many divisions of the Southern Pacific company's system, the company has lately issued a circular of general information to its engineers, relating to the use of oil and oil apparatus which, while it is intended for the instruction of those in the motive department of the company, cannot fail in some of its features to interest the public.

The use of oil fuel has greatly decreased the labor of the fireman. Not only has it does this, but it is gradually doing away with large numbers of laborers formerly employed in the handling of coal.

But counterbalancing this advantage is the fact that the oil-

burning locomotive will require a higher class of mechanics in handling it. The fireman of the next twenty years will have to acquire a thorough technical education before he is fitted to engage in the highly complicated business of firing. While the use of oil has materially decreased his labor, it will necessitate the highest order of intelligence and skill in using the fluid fuel, for, while the oil used on locomotives is not a high explosive under normal conditions, it is, when subjected to the great heat of the fire-box, an exceedingly dangerous substance unless properly handled.

In compiling the book of instruction for the use of the engineers and firemen, the company has embodied in it the experience and knowledge of the subject of the best engineers and mechanics.

Before starting a fire in the fire-box of the engine, the fireman must see that there is no obstruction to the free passage of the burning oil from the front to the back of the fire-box. All fallen bricks must be removed. A piece of oily waste is then ignited and tossed to the middle of the fire-box. Then the oil is turned on slowly. At the same time the atomizer, a combination of compressed air and steam, is turned

on with sufficient strength to blow the oil to the fire.

Gradually the oil and atomizer are turned wider open until the flaming oil reaches to the furthest corner of the fire-box. In putting out the fire the oil valve on the tank is first turned off and the oil in the pipe allowed to burn out before the pipe is turned off. Then the atomizer and dampers are turned off.

It is important that the dampers should be closed to prevent the passage of cold air through the fire-box when the tubes are highly heated. What is known in railroad parlance as "drumming" is caused by the faulty construction of brick-work in the fire-box, careless handling of the oil valve by the fireman when the engine is working slowly, or by the atomizer valve being opened too far.

To obtain the most economical results utmost care must be used to keep the temperature of the oil in the tanks at about 100°. The oil in the storage tanks of the tender is frequently heated by steam and in doing this it is necessary that no more steam be admitted than absolutely necessary as the condensation is liable to prevent a continuous flow of oil.

Black smoke must above all things be avoided. The soot

formed by smoke is a non-conductor, and will cause an oil-burning engine to fail in steam quicker than from any other cause. An accurate combination of oil and steam in the atomizer with a proper admission of air is necessary to a thorough combustion.

Some of the things which the firemen are obliged to take precautions against are improper sanding, insufficient flow of oil to burner, water in the oil, fallen brick or other obstruction in the bottom of the fire-box, partial or complete closing of the atomizer tube in the burner and the slipping or working of an engine with the fire out.

When it is necessary to do any work inside the oil tanks after they are empty, the firemen or engine hostler first puts a few pounds of caustic soda inside and then turns on the steam through the heater pipe until the water boils through the man-hole at the top. This is done because petroleum gives off a greater or less percent of volatile gases at low temperature, and it is absolutely necessary that no lantern or open light be taken into the tank until it has been thoroughly cleansed.

The use of oil has brought with it many mechanical problems which are, as yet, a long way from being solved.

## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
			Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Re-Iduum, including Tar and a'l other from which the light bodies have been dis- tilled.	
	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
January, 1903.										
British Columbia.....					500	\$117				
Costa Rica.....			1,210	\$152	40	7	71	\$44		
Guatemala.....					3,450	724	2,735	932		
Honduras.....					900	210				
Salvador.....			20	6	6,460	1,175	500	174		
Mexico.....					150	26	204	125		
Ecuador.....			350	80						
French Oceanica.....					370	84	10	6		
German Oceanica.....			10,890	1,223	3,000	683	205	112		
British Australasia.....							1,990	482		
Alaska.....					500	113	545	318		
Hawaii.....	1,452,000	\$43,400	10,306	1,827	32,550	6,987	13,119	5,849		
Tutuila.....					330	83				
Total.....	1,452,000	\$43,400	22,776	\$3,288	48,250	\$10,209	19,339	\$8,042		
February, 1903.										
British Columbia.....							781	\$397		
Costa Rica.....					250	\$53				
Guatemala.....					5,550	1,161	80			
Nicaragua.....					2,000	370	381	42		
Salvador.....					2,200	475	100	35		
Mexico.....			100	\$31	2,400	518	5,100	1,260		
Chili.....							1,114	298		
British Australasia.....							1,711	388		
French Oceanica.....			550	96	2,390	508				
Alaska.....					1,690	273	517	358		
Hawaii.....	2,120	\$105	9,165	1,219	25,000	5,455	9,115	3,839		
Tutuila.....					110					
Total.....	2,120	\$105	9,815	\$1,346	41,590	\$8,833	18,942	\$6,637		
March, 1903.										
British Columbia.....					300	\$75				
Costa Rica.....	304	\$19	1,030	\$234	700	147	278	\$101		
Guatemala.....					9,760	1,996	330	157		
Honduras.....			300	70						
Salvador.....			110	18	4,810	784				
Mexico.....					150	28	317	106		
Chinese Empire.....							40			
Japan.....							2,850	576		
British Australasia.....							1,000	211		
French Oceanica.....					370	79				
Alaska.....			660	122	940	208	3,630	771		
Hawaiian Islands.....	218,000	7,150	11,280	1,872	162,500	26,381	7,198	3,171		
Tutuila.....					1,182	237				
Total.....	218,304	\$7,169	13,380	\$2,316	180,912	\$29,973	15,643	\$5,113		



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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ONE YEAR ..... \$2 50  
SIX MONTHS ..... 1 50  
THREE MONTHS ..... 1 00  
SINGLE COPIES ..... 10c

STRICTLY IN ADVANCE

MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine Street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
A. R. Derge & Co., Salt Lake, Utah.  
The Temple News Stand, Chicago Ill.  
The Equitable News S and, Denver.  
11 Columbia Street, Boston, Mass.  
20 Broad Street, New York City.

SATURDAY.....APRIL 18, 1903

## The citizens and taxpayers of Oakland and the President

certainly have no reason to be proud of the fact that their main thoroughfare between Oakland and Berkeley is in such a condition that on the occasion of President Roosevelt's visit next month it has been determined to be wise not to take the President from Berkeley to Oakland by means of a suitable and customary carriage but to have designed and constructed a special street trolley car, fitly decorated, and to transport the President by this means rather than by carriage.

The use of the trolley car instead of the carriage was rendered necessary on account of the condition of the streets of Oakland that connect that city with the university town. The distance between them is about five miles. Fully two-thirds of this distance lies in Oakland, and of this not a block is in a condition fit to drive over. It was paved a few years ago with bituminous rock, so called, but this paving was not only poorly done but was never kept in repair. The consequence is that now for its entire length of the street it is full of holes so deep and so wide that driving over it is not only exceedingly disagreeable but is actually dangerous.

For this reason the committee in charge of the President's reception deemed it wise to change from the customary carriage to the trolley car.

The worst feature of the case is that while there are several other streets and avenues running from Oakland to Berkeley each is in the same or in a worse condition

than Telegraph avenue, the street usually chosen, so that there is practically no choice of routes.

This paper has called attention before to the shocking condition of Oakland's principal streets and has urged that steps be taken at once to have them properly paved with asphalt. In speaking of the criticisms made by this paper on the streets of Oakland the Tribune of that city says:

"Telegraph avenue should be paved with asphalt for its entire length. A section of it has never been paved at all, not even macadamized. It is to be regretted therefore, that the town is not really up in arms over the condition of its streets. Something would promptly be done in that case."

There may be some consolation for Oakland in the fact that the streets of San Francisco are in no better shape than those of Oakland.

The reason is the same, viz.: All the paving of San Francisco's streets, with few exceptions, has been done with bituminous rock, otherwise asphalted mud. This bituminous rock will not and can not from its very nature stand the test of time, wear and climatic conditions. In every instance bituminous rock is a failure. It would not be thought of for a moment as a practical paving material were it not for the fact that the paving contracts of this city and of Oakland are practically in the hands of and under the control of the firm that owns the quarries from which the asphalted mud is taken. This firm is powerful and its representations have thus far been so plausible that the bulk of the paving contracts have been given to them. This has been more easily accomplished as the asphalt men have not been organized for business, have been working against rather than with each other, and the entire paving business has practically been turned over to the City Street Improvement company, the principal owners and handlers and layers of asphalted mud now operating on the coast.

If Oakland desires to have streets fit for driving upon she should see to it that in the future her streets are paved with asphalt.

This applies with equal truth to all other cities on the coast and elsewhere that are contemplating paving their streets.

Modesto is about to issue bonds for street paving purposes. Merced is talking about doing it. So is Santa Barbara and a dozen other cities. San Francisco is talking about expending one million dollars on her streets.

If this money is going to be expended on paving the streets with bituminous rock the money had better be kept in the treasury instead of being thus wasted. The only material suitable for

street paving purposes is asphalt refined from California crude oil. Pavement thus made stands every test of time, wear, climate and extremes of heat and cold. It is the only material that should be used by any city that desires good, smooth, durable streets.

## COALINGA OIL.

### Its Superior Fitness for Gas Engines Fully Demonstrated.

The following statement from the reliable and responsible firm of John Rosenfeld's Sons clearly demonstrates the worth of the light oil which comes from the Coalinga field for use in gas engines. It has been frequently stated that crude petroleum could not be used to advantage in gas engines, but the letter shows that not only can it be so used but that it is superior in many respects to gasoline both in cheapness and in the results obtained. The oil referred to is the light 34 gravity oil that is produced by the Coalinga and Home Oil companies. These two companies now have twelve producing wells that are the oldest wells in the Coalinga field. The oil is not only peculiar to this field but is the only oil, we believe, of this kind that is produced in the Coalinga field, the other oil being different both in degree and in kind, being heavier. This oil beside being adapted for use in its crude state for engines is also peculiarly well adapted for gas-making purposes. It commands a higher price in the market than almost any other oil in the State. The wells of these companies have never been called upon to produce their fullest possible output, but with the increasing demand that is liable to result now that the adaptability of this oil for gas engines has been demonstrated it is expected the wells will soon be taxed to their utmost capacity and that new wells will have to be drilled.

The letter is as follows:

SAN FRANCISCO, April 6, 1903.

DRAR SIR: Replying to your inquiry as to our experience with use of Coalinga oil (34° gravity) in gas engines in place of using gasoline, we beg to state that we have not only found that we can run on Coalinga oil at one-fifth the cost of gasoline (72° gravity) but that we can produce power at less cost with Coalinga oil in gas engines, than can be done with the cheapest available fuel in the ordinary types of steam engines.

We give you the following from our experience at the Vandalia Mine, El Dorado county, Cal.

When we bought the property they were using gasoline in some small gas engines, and we continued their use a short time, gasoline costing from 16 to 18 cents per gallon plus freight from San Francisco or Sacramento to the mine.

In contemplating the enlargement of the plant we had figured on water, electric, or steam power. As at first we wanted only 75 to 100 horse-power, we were on the point of buying a steam plant, when we heard of a pumping plant that had been using Coalinga crude oil in an Otto Gas Engine with a Daniel

Best Generator attached. We were astonished at the way it figured out, as it seemed cheaper to generate power with the Coalinga oil in a gas engine than with the heavy oils used on boilers, even though the price of Coalinga oil was much higher than the heavy Bakersfield oil; and as against gasoline it seemed to cost less than one-fifth.

We concluded to hold the steam plant in abeyance until we could test the Coalinga oil to our own satisfaction. We ordered a Best generator (at a very small cost) and attached it to a 10 horse-power Hercules Gas Engine which we had at the mine, and had them alternately using Coalinga oil and gasoline.

We found that we consumed less Coalinga oil than we did 72° gasoline doing the same work.

As the gasoline cost us five times as much as the Coalinga oil, we readily saw that we could no longer afford to use gasoline or distillate.

At the same time, it figured a less cost per horse-power on even a 10 horse-power gas engine, than we knew the lowest cost to be on a 5,000 horse-power highest class steam engine and boiler plant using fuel oil for generating steam. Also, we found the residue from the Coalinga oil a fine lubricant that we could use in place of oil that would cost us 25 cents per gallon; and we had applications from others to buy this residue, if we made more than we could use.

Upon this showing we concluded to use gas engines and Coalinga oil, and we installed a 75 horse power gas engine and generator, which we have now been running some time very successfully.

Our mine is on a branch road charging a high rate of freight in addition to the San Francisco terminal rate, and yet we find it costs us less than \$2 per horse power per month of 720 hours for fuel.

We asked the mine to furnish us accurate data of the consumption of Coalinga oil in the 75 horse power engine and received the following:

The past ten days, when running twenty out of twenty-four hours, we have developed 60 horse power (and at times over) on seven gallons per hour, or .1166 of a gallon per horse power per hour. We also saved 150 gallons of residue, which replaces an equal number of gallons of lubricating oil costing 25 cents per gallon, and which should therefore be credited against the cost of the Coalinga oil.

It is our experience that one gallon of Coalinga oil will produce as much power as one and one-half gallons of gasoline.

From the figures of consumption given above, you can arrive at the comparative cost of running gas engines, taking the prices of Coalinga oil and of gasoline at the place where it would be used.

As some parties are now figuring on a 1,000 horse power plant, and as it appears they could run at lower cost on Coalinga oil with gas engines than with steam engines, we have promised to make some exhaustive tests for them. We feel satisfied, however, they will show fully as well, as we have found the results the same on both the 10 and 75 horse power engines. We can switch over to gasoline any time, so that the comparison at least is easily demonstrated. In fact our men running the engines say they can notice the stronger effect of Coalinga oil immediately they switch on to it.

Yours truly,  
JOHN ROSENFELD'S SONS.

"The eye is the window of the soul." Let some light on industries into your soul by reading the prospectus of the New Franklin Oil and Refining company. It is an opportunity for safe, conservative investment.

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**EASTERN OIL SUIT.****Rights of a Minor in Sale of Oil Land.**

An important suit has just been decided by the Supreme court at Sistersville, West Virginia, in the case of Stewart vs. Tennant.

The facts in the case are substantially these. James Stewart being the owner of a tract of 176 acres of land in that county, died in the year 1889, intestate and leaving surviving him a widow and twelve children. Afterwards, and prior to July 1, 1890, Jacob Tennant and Cassie A. Tennant purchased the undivided interest of six of said children. They then brought a partition suit. After this suit was brought the Tennants purchased of the widow her dower and the interests of four of the other children making them owners of ten twelfths of the land. The other two interests were owned by the plaintiffs in this suit, Louis and Emma Stewart. The court heard evidence to the effect that it would be to the interest of these two minor children to have their interests sold in the land which was done on the 8th day of December, 1891 and Tennant bought the interests for two hundred dollars. The Tennants took possession of the land and leased it to the South Penn Oil company, for oil, which company drilled in twelve wells on the land. On the 29th of June the plaintiff who had been under age, brought a suit against the Tennants, South Penn Oil company, and Eureka Pipe Line company, to set aside the sale of their interests, claiming the sale was null and void. The court decides as follows:

1. An infant, under the statutes allowing to him to show cause against a decree may do so by original bill, although the cause alleged is error of law apparent on the face of the decree.

2. When such bill seeks relief, by way of cancellation of a deed and an accounting for waste, rents, issues and profits, consequent upon the reversal of the decree, and fully set forth the defects in the decree, and incorporates the pleadings, decrees and orders as exhibits, the suit is not collateral, but directly attacks the erroneous decree, and the record of the cause in which it was pronounced may be introduced upon the hearing as evidence.

3. Where the allegation of a bill are sufficient to support a decree, and there is a prayer for general relief, and such decree is pronounced it will stand, although not specifically prayed for in the bill.

4. Where an infant proceeds promptly upon attaining his majority, to show cause against a decree, the defence of laches cannot be made.

5. Before there can be a sale of

land in a partition suit it must be ascertained and determined that partition thereof cannot conveniently be made, and the usual and preferable mode of establishing such a fact is by report of commissioners, so stating, and setting forth the facts from which it appears.

6. Where, in a partition suit, there is an allotment of part of the land and sale of the residue, the allotted part and the proceeds of the part sold must each be divided among all the co-tenants of the entire subject, in the absence of a consent decree, when adults only are interested, and it is error to sell the undivided interests of infants in such suit, when there is no proceeding therein by their guardian for such sale in the manner prescribed therefor by law.

7. A party to a suit, moving the sale therein, of an infant's real estate, and purchasing the same under a decree therein made, is not protected by section 8 of chapter 132 of the code, and, on reversal of the decree, his title falls.

8. A decree entered in a cause, in which all interested parties are before the court, and upon which such decree would have been proper, under certain conditions which might have been shown by proof, upon the allegations of the bill, to exist, is not void for want of jurisdiction, however erroneous it may be.

9. The Act, passed by the legislature, March 25, 1873, entitled "An act concerning the limitation of actions in certain cases," is void for want of expression of its object in the title thereof, as required by the first clause of section 30 or article 6 of the constitution, providing that, "No act hereafter passed, shall embrace more than one object and shall be expressed in its title."

10. If said act could be held free from the fatal defect of unconstitutionality, it would be within the repealing clause of the act of March 16, 1882, constituting chapter 104 of the code, and not available as a defense to any action or suit.

11. Tenants in common, committing waste against co-tenant, are wrong doers, and may be sued on account thereof jointly or separately, and when sued jointly, it is not error to dismiss the cause as to one of them, on motion of the plaintiff, and over the objection of the other.

12. Where, before assignment of dower, one claiming by purchase from certain heirs and the widow, drills oil wells upon the land and extracts large quantities of oil therefrom, without having obtained the consent of his co-tenant to such development; and such non-consenting co-tenant brings his suit for an accounting, it is error to decree to him his entire interest in the oil produced,

free from any charge on account of the dower interest.

13. In such case, the holder of the dower interest is entitled to the interest of one-third of the proceeds of the oil going to the non-consenting co-tenant, until the death of the doweress, and until that date the fund which such interest is paid remains under the control of the court through its general receiver.

14. An infant, whose land has been sold under an erroneous decree, and the purchase money paid to his guardian, and who sues for reversal of the decree and cancellation of the deed, must tender with his bill, the purchase money, or offer therein to repay it.

The case is reversed and remanded. Judge Poffenbarger rendered the decision. Pugh and Strickling are attorneys for Stewart and get for their fees one-half of the recovery, which is estimated to be twelve to fifteen thousand dollars.

An industrial earning good profits, of which you will get your proportionate share, whether you are a large or small stockholder, is what we offer in the New Franklin Oil and Refining company. It is paying 16 per cent on the investment at the present time, and we commend it as a safe investment.

c m hatcher & company  
journal building boston

**Query.**

An act to prevent injury to oil or petroleum bearing strata or formation by the infiltration of intrusion of water therein:

"Section 1. It shall be the duty of the owner of any well that may be drilled in the State of California on lands producing or containing oil or petroleum to properly case such wells with metal casing in accordance with the best improved methods landing the casing in the clay or other water impervious strata or formation underlying such oil or petroleum producing or bearing sands or strata and effectually prevent any water from penetrating such oil or petroleum producing or bearing sands or sands."

Query. If the casing is put into underlying impervious strata beneath an oil bearing sand how is the oil to enter the casing.

A. S. COOPER, M. E.

**Texas Refineries.**

The Southern refinery at Beaumont, Tex., is reported as ready for business. It is said to have sold its maximum output for twelve months. The Burt refinery will be in operation shortly. This plant covers 100 acres. The plant has cost between \$3,000,000 and \$4,000,000. It has provided for a partial supply of oil by the purchase of nineteen wells. The Union refinery, backed by Beaumont capital exclusively, has had several setbacks and will not be ready for business until May.

# Alaska Mosquito Head Net

A Perfect Protection Against Insect Pests



Adopted by the United States Government as the Standard for use in the army.

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Folds up compactly and goes easily into the pocket.

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Factory, 1927 Haste St., BERKELEY, CAL.



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### COALINGA.

The Maine State Oil company will begin on their No. 5 well the coming week.

The Call Oil company on section 32-19-15 will commence rigging up within a few days.

The Esperanza is making preparations for well No. 3, to be located south of their No. 2.

The Pacific Coast Oil company began laying a four-inch pipe-line from the California Oil Fields, Limited on section 21, 19-15 on the 13th.

Mr. E. F. Sikes, representing the King Lumber company, of Bakersfield, has just put up a 1,000-barrel water tank for the Coalinga machine shop.

Representatives of the National Supply company have been looking over the town, and it is rumored that they contemplate putting in a supply store.

The Acme Oil company, located about twenty miles out of the field, whose casing collapsed about a year ago, have made an assignment. The casing and drive pipe is now being pulled by A. B. Canfield.

H. H. Welsh, president of the St. Paul Oil company, and U. M. Thomas, secretary, spent several days in the field. E. J. Buckland of North Monroe, Ohio, and Phil Ekas of Sheffield, Pa., were also here.

The Southern Pacific Railroad company continues to hurry its work of grading for the new tanks. An additional carload of horses came in during the week, and the tank builders have begun work on the first tank at Ora station.

After completing operations on their first well, which is down nearly 800 feet, the Section Seven Oil company will immediately begin work on another well. This will be followed by a well for the Penn-Coalinga and one for the York-Coalinga.

The Caledonian Oil company, on 26-20-14, have completed their No. 1 well at about 700 feet, with a fine showing. The company is located the farthest south of any company in the field, and their success opens up a large new territory for operation.

R. C. Baker's well on section 23-20-14, that came in a few weeks ago, far exceeds its first estimate. They have been bailing ever since the well came in with a 60 foot bailer and are unable to lower the oil, that stands within 100 feet of the top of the casing. They have already filled three reservoirs with oil.

All of the pipe for the Pacific Coast Oil company's pipe line has been received and unloaded, and they began hauling it out to the course on the 12th with thirty teams at work. It seems as if Coalinga will use the new outlet within a very short time, judging from the aggressive work of the company to complete the line.

C. A. Baldwin, agent for the Pacific Tank company, is putting in one 500-barrel and one 1,000-barrel tank for McClurg & Claypoole, two 1,000-barrel tanks for use of the Penn-Coalinga and York-Coalinga Oil companies, and a 1,000-barrel water tank for the Coalinga Consolidated Water company on section 28, beside the present tank of the Valley Water company.

Contractor E. R. Smith, who had the building of all the buildings at the different stations along the P. C. O. com-

pany's pipe-line, was in Fresno Tuesday and according to the Republican of last week will soon commence work on the buildings needed along the Coalinga pipe-line. The pipe for this line is mostly on the ground at the present and it is thought the line will be in operating order at the expiration of forty days, and will connect with the main line at Modesto. At Coalinga there will be a pumping station of the same kind that are distributed along the main line, at which there will be the two large brick structures for the engines and pumps, four dwelling houses for the employees, and this station will be connected with feeders distributed about over the field to handle the product.

#### COLUSA.

The Williams Oil company held its third annual meeting last week and elected the following directors: George A. Ware, J. M. Stovall, George C. Comstock, J. W. Brim, A. Schadd, J. F. Fouch. It was the unanimous opinion of all present to commence a new hole. An expert will be engaged to select a location. The clause in the by-laws prohibiting the directors from incurring an indebtedness of more than \$2,000 was stricken out. The following officers were elected: George A. Ware, president; J. M. Stovall, treasurer; George C. Comstock, secretary.

#### KERN

The Sedalia-California commenced last week on its No. 6, and its No. 5 is producing some 300 barrels a day.

O. S. Hickey has succeeded in shutting off the water in the Charter Oil company's well by cementing on top of the oil sand at 608 feet.

The Monarch Oil company of California, McKittrick district, has made a contract for the sale of a portion of its product, and will shortly start the pump.

The Sunset Asphaltum and Refining company is commencing work on its refinery at Sunset. A car of machinery and two cars with two 200-barrel stills are now on the ground.

F. E. Mannell, the well-known McKittrick operator, has returned from a prospecting trip through the Cuyama country. He found good surface of oil in portions of the lands along the Midland route, and later on may make more extensive explorations.

Governor Pardee has signed the following land patents covering land in Kern county: Jennie Waterman, 60 acres school land; John B. Batz, 40 acres school land; Kern County Land company, 640 acres school land; Midway Oil company, 20.66 acres school land; Joseph Randall, 20.66 acres school land.

The Standard is constructing an independent pipe-line from the reservoirs of the Peerless Oil company at Kern River to its own tanks to convey the oil which it is taking from the Peerless under contract. The independent pipe-line is rendered essential by the fact that the amount is too great to be carried by the same line as is used for ordinary business.

The rush to file claims in the Cuyama Valley and the Carisa plains continues. A. W. Dymond, J. B. Batz, L. Jewett, and other Sunset operators have gone out to locate along the line of the Midland Pacific. J. B. Treadwell has also gone out for the same purpose. Several hundred claims have already been taken up there, and the excitement is in-

creasing every day. Competent oil men say that they consider the Cuyama and Carisa districts will be among the best fields in the State when developed, as they will be as soon as the railroad is built through.

Within a very short time the California Consolidated Oil Fields, Limited, will be actively at work on their new improvements in Sunset. These will consist of very material additions to the still capacity of the refinery, the building of a ten inch pipe-line through the fields as far as not farther than to the great wells of the California Fortune, the erection of an immense storage plant near the railroad terminus at Sunset, and other improvements which will require an expenditure of upwards of \$1,500,000. Preparatory work is already under way.

Development work in Sunset is being actively pushed by all the companies in the field with very few exceptions. At the Fulton, the new company which is an offshoot of the Peerless, the first well is being drilled about 250 feet from the big well of the Maricopa. This is the central portion of Sunset, and similar development work is being pushed all up the line as far north as the wells of the California Fortune, which company expects that the increasing demand for oil will necessitate drilling several new wells very soon. The price of oil at the wells is rapidly increasing.

The Alameda Oil company at Sunset is now drilling wells Nos. 4, 5 and 6. The first of these is now in sand, the second is down 600 feet and the third 200, and No. 7 is rigging. The Elk has its No. 2 at a depth of 1,050 feet. The Arcola, No. 3, is at 500 feet. A. C. King & Co. are down 750. The Four Hundred Oil company, 1,150, and fishing for tools. The Sunset Center has had some trouble with its casing but is now drilling again at a depth of 650 feet. The Chico, ten miles south of Sunset, is increasing the depth of its well from 1,200 to 1,500 feet. This company failed to get oil in paying quantities at the first depth but had good indications.

The Associated is now shipping oil from the Kern River and McKittrick fields at the rate of 10,000 barrels a day. No new contracts are being made at less than thirty cents a barrel at the wells. The company is now providing new storage of 650,000 barrels capacity. One earthen reservoir has been contracted for to contain 400,000 barrels in the Kern River field, and another to hold 250,000 barrels in the McKittrick field. This last will be lined with brick and ce-

ment. The company is keeping three rigs at work in order to make its production keep pace with the increasing demand. The stock of the company is now listed on the Oil Exchange at 20 cents bid. This is an increase in price over former quotations.

It is reported from an authentic source, says the Echo, that a big block of the Diamond's stock, a Sunset corporation, has recently changed hands, about the only members of the old organization retaining their interests being T. C. and John O. Miller of Bakersfield. The purchasers are Geo. T. Cameron of San Francisco and parties located in other parts of the State. The consideration has not been made public, but it is understood that the price was fairly good and satisfactory to all parties concerned. In the re-organization J. C. Sperry of Ventura was elected president; T. C. Miller, vice-president, and Geo. T. Cameron, secretary and general manager. The company is the owner of a valuable piece of property at the terminus of the Sunset railroad and on which are two splendid producing wells. The plans now are to resume development work at once and to sink a number of new wells.

Charles Barnard has assigned to H. A. Blodget an undivided one-half interest in leases from the Sunset Oil company and H. A. Blodget et al, affecting the south half of southeast quarter of section 2; east half, south half and northeast quarter of northwest quarter of section 11; south half and northwest quarter of section 13; northeast quarter of northeast quarter of section 14; northeast quarter of northwest quarter of section 24, 11-24; southwest quarter, southwest quarter of southeast quarter of southeast quarter of section 18; northeast quarter, southwest quarter of section 19, all of section 20; northwest quarter of section 21, 11-23. Barnard assigns to Jewett & Blodget all interest in the same leases and personal property thereon. The consideration is \$400. The Bakersfield and Fresno company's lease from the Associated Oil company modifies and affects the west half of northeast quarter of southeast quarter, west half of southeast quarter of northeast quarter of section 4; northeast quarter of northeast quarter of section 4, 29-28 as to development work.

#### MONTEREY.

The Combined Oil company will soon commence drilling on their well near San Lucas. Some delay has been experienced, but now all is in readiness.

**DEBENTURE SURETY COMPANY**  
INCORPORATED  
MILLS BUILDING  
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We have one of the best oil propositions in the country.  
Send for our free booklet. The following are some of the subjects treated.

How Oil Wells are Drilled.  
The Cost of a Deep Well.  
Protection to Customers.  
Dividends.  
Debuture Contract.  
We Guarantee Investigation.

Easy Payment Plan.  
Refinery.  
Logs, Maps, Photographs.  
General Management.  
What Business Men Say.  
Press Notes.  
Expert Report.



and the drill will commence dropping either this week or early next week.

#### OKLAHOMA.

On Monday, March 23rd, the first shipment of crude oil was made from Oklahoma city, Okla. The shipment marks an important step in the history of this new field. The shipment was made by the Indianola Oil company and the oil went to the Neodesha refinery. The first shipment consisted of 300 barrels in two tank cars, and as fast as cars can be secured more shipments will be made. Oil was discovered in Red Fork only a little more than a year ago.

#### SAN BENITO.

A mishap occurred Monday at the Alvarez oil well. While preparing to begin boring the crew was hauling into position the big drill with the cable attached. It weighing a ton and being a side pull proved too much and snapped off the top of the derrick; but fortunately nobody was hurt. This delays drilling a few days.

The Dinero Oil company has been organized with a capital stock of \$100,000. The holdings of the company are situated in the Bitterwater district, and on which drilling for oil will soon commence. The incorporators are: Fred Searls, E. J. Rector, James Tully and Ed. Griswold of Nevada county and T. S. Rickey of San Benito county.

#### SANTA BARBARA.

The Pacific Oil and Transportation company has unloaded two cars of oil well machinery at Casmalia, and it is understood there are several more cars to come for the same company.

Mr. Isaac Guy of Santa Rita, who sold a valuable oil tract recently has invested, 'tis said, in a claim in Drum canyon that is considered valuable for oil. There is talk of a company going to put a well down in that region to test its oil bearing quality.

There are no new known developments in oil matters in the Lompoc field beyond the decision of the Union Oil company to test its extensive holdings to determine to what extent and where development work for oil production can be entered upon with least cost in reaching tide waters, which will be effected by a pipe-line soon as the product will justify the expenditure. Development is not effected in a day, and it may be slow, and some time in reaching a degree warranting the laying of a pipe-line. The company evidently has no present plans beyond testing its territory, and upon results in that line will depend future operations. No one connected with the company is authorized to state any definite work planned beyond the boring of wells now contemplated and in progress.

#### SARGENTS.

The Alberta Oil company at Sargents commenced drilling Monday a half mile west of their former site.

A rig will soon be at work on the San Justo ranch of Hon. Thomas Flint, near the old mission town of San Juan, eight miles from Sargents.

W. E. Youle, one of the most experienced oil men in the State, will soon be interested in the Sargent oil field. If oil is on his land he will find it.

R. H. Gorill, who has been operating extensively in Colusa county, has been at Sargents for some days. It is not known whether or not he succeeded in obtaining oil land.

The Watsonville Oil company are still baling out oil and sand from their flowing well. Daily the gas below forces the oil and sand some thirty feet above the derrick. The crude oil is stored in a reservoir across the creek, and is used for fuel by both the Watsonville and Alberta companies.

New bunk-houses are in course of erec-

tion on the Sargent estate, about a quarter of a mile south of the station, on the east bank of the river. These will shelter the workmen on the well of the Sargent Oil company, which expects to have its rig in place on the west side of the river and ready to begin work by May 1. Col. Beane is on the ground superintending arrangements.

#### STANISLAUS.

The supervisors of Stanislaus in connection with the city trustees of Modesto will oil several miles of road near and in Modesto.

#### VENTURA.

It is reported that the Standard Oil company will do a great deal of prospecting this spring in the Newhall field of California. The company now owns 5,000 acres at Newhall.

#### WHITTIER.

The Murphy Oil company began drilling on No. 13 last week and now have a hole about 500 feet deep. This company is now running two strings of tools but expects in the near future to start two or three more. The grades for Nos. 15 and 16 are being made.

#### WYOMING.

Operations will soon be resumed at the Ellis well on 10, 14-118.

The Evanston Oil Exchange is kept busy answering eastern inquiries.

Membership in the Evanston Oil Exchange has been raised from thirty to fifty members.

The Idaho-Wyoming has received a carload of pipe, and will now run two shifts. The well is now down 1,100 feet.

The Illinois & Wyoming company has been organized with a capital of \$500,000 to operate on 640 acres adjoining the Bettys holdings.

The Inter-Mountain Oil company is said to have purchased five sections in the Round Mountain district for development purposes.

The Overland company struck another oil stratum in their well at Fort Steele last week at a depth of 1,800 feet. This well will be sunk over 3,000 feet if necessary.

#### Natural Gas.

The Record says that it is not improbable that within the coming year Lompoc will be lighted with natural gas if there shall be as great a supply in the wells to be bored as the one now in. In Pennsylvania it is not uncommon for a single well to give off gas in sufficient quantity to light towns much more populous than Lompoc. It is also not unlikely that oil may be reached in the hills south of town as well as north where development work is now in progress, and from any or all sources will come advantages to our town. Natural gas from wells, if not brought from too great a distance, is the cheapest light and fuel known.

#### Oil Land Sale.

Eight hundred acres of the proved oil field at Sour Lake Springs are reported to have been sold last week by private owners to a company whose name has not been made public. The stipulated price was \$1,000,000, \$900,000 of which was paid in cash.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

#### UNION OIL COMPANY.

Very Satisfactory Annual Statement Just Issued.

The annual statement of the Union Oil company shows net earnings for the calendar year 1902 amounting to \$299,048.42, which is equivalent to 57 per cent on the par value of the average number of shares outstanding during the year. This is in the face of a depressed market, due to recent over-production.

The company owns 180,000 acres of oil land, the value of which would reach far into the millions. Among its other assets are two oil refineries with wharfage, 167 miles of pipe-lines, three vessels for transporting oil, water fronts and terminals and other properties, amounting to \$2,528,145.36. Within the past year the company has made contracts for the sale of oil in the Hawaiian Islands and in Alaska, and secured about 72,000 acres of additional lands in the Coalinga, Kern River, Santa Maria and Lompoc oil fields.

#### Demand for Good Oil Wells

The effect of the widening use of oil in the common walks of life and the general acceptance of the new fuel as something to last in the staple regime of the factory and home, means that there will be a greater value to the oil-producing sections and inevitably larger dividends to the possessors of the producing properties. It is true that there are on the market a horde of fake investments of this kind, brought out by the popularity attending the legitimate ones, but it does not take a very deep discrimination to determine which is the real and which is the false. The oil or gas investment that promises to operate on the "get-rich-quick" plan is not to be trusted. The strictly legitimate list of investments has no connection with these. The oil property that is developed on the proper basis will not make the investor rich "quick," but it will return a good income and, unless there has been mismanagement along the line or a false estimate somewhere, it will be a permanent income-giver.

The demand to-day in the investment field is permanency and the outlook for the oil field is that it will show no diminution in the supply. Rather it will be better as the years go on, for the coming decade is certain to give a larger use to oil in the every-day affairs of life and to multiply by thousands the number of those who are purchasers of the material. It may come to be that oil will be delivered to our homes in the same every-day regularity as is coal now, and that when the kitchen fire or the parlor grate needs replenishing the oil supply will be drawn upon. The factory may be run by oil, even if far re-

mote from the producing oil wells, and the railways may make this their chief source of fuel supply.

The legitimate oil fields are being extended so rapidly that it will not be long ere the supply will be equal to a much wider use at a price that can be afforded. Eastern money is going into the Western discoveries rapidly and thousands of new wells are being put down. Capitalists are evidently well satisfied with the outlook and expect larger things in the future.—Journal for Investors.

#### The New Franklin.

When the plans which have been formulated by the New Franklin Oil and Refining Company of Los Angeles, Cal., have been carried out, there is every reason to believe that the company will have a plant which will prove to be a splendid dividend earner. Since June, 1902, the company has paid 1 per cent a month on the par value of \$1.00, the profits being made from the refining of crude oil and the sale of the asphalt and by-products. The company is now busily engaged in installing a plant for the manufacture of felt paper to be saturated with asphalt for roofing purposes. For several months this work has been going on, the paper being purchased in the East. With the equipment of its own a material saving will be effected, and the dividends should eventually be materially enhanced. The company has also acquired the property of the Park Crude Oil Company of Los Angeles, and will be able to produce a goodly proportion of the crude oil which it will use at less than one half the present cost. The combination will make a most effective one and should prove an excellent investment. The additional issue of shares to raise the funds necessary for this work are being handled by C. M. Hatcher and Company, No 262 Washington Street, Boston, Mass.

#### Recent Patents.

The following recently granted patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. N. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Oil can, T. W. Alexander, Burlington, Iowa; 721,134.

Device for raising liquids from wells, T. F. Moran, De Young, Pa., 721,594.

Oil can, W. A. Reinecke, Kerner, Kansas, 721,606.

Pipe coupling for deep-boring devices, Theodor Steen, Berlin, Germany; 722,764.

Gripping attachment for oil well pump rods, J. W. Rhoades, Postoria, O.; 723,026.

Cup for oil wells, Martin Wert, Parkers Landing, Pa.; 723,096.



## OIL AT LOS GATOS.

### One Well Has Demonstrated the Presence of Oil.

It has been finally demonstrated that there is oil in Santa Clara valley. At the solicitation of C. A. O'Brien, an Eastern stockholder, a San Jose Mercury representative visited the Main place, two and a half miles this side of Los Gatos, where the well is located and in operation, on Monday last. So much had been said about this well, and so many inflated reports had been circulated about it and its possibilities, that the idea of finding a real well, with a heavy quality of petroleum being pumped up from the earth and flowing in a strong stream into a tank, seemed preposterous. But the well was there, and the oil was there, notwithstanding the yarns that had been sent abroad when there was probably little upon which to base them.

The young man in charge of the drilling, W. T. Gallagher, asked about what had been done down to date; said that a drill had been sunk 1,675 feet and a pump was down 1,450 feet. At this depth oil is being taken in considerable quantities, although the driller and members of the company are convinced that if the pump were down 1,610 feet the capacity would be very materially increased. Gallagher declares that the further down the drill has

gone the better have been the indications. The oil sands tested were found to be richly impregnated with petroleum, particularly near the bottom.

A serious and expensive mistake was made in the beginning. The management presumed for some reason that it would not be necessary to sink a drill more than 1,200 feet, and the casing used was in harmony with this depth. But as the test proceeded and it became apparent that the main flow was far below the 1,200 foot line, the casing, although now narrow, was forced down to 1,675 feet, at which point they were compelled to cease boring because of the smallness of the casing. A portion of the lower casing was then perforated and a pump put in at 1,450 feet, which operated successfully, and is now producing a fine flow of oil. In a few days 225 feet of the upper casing will also be perforated, and the oil sands through which this casing runs will naturally very largely increase the flow of oil.

Members of the company say that another well will be put down at once to tap the main body of oil, which the test already made shows lies lower down than in the case of the well already in operation.

The company believes it has a paying property now. They say that the present output pays well enough, and that when they have

sunk another drill and tapped the big flow the profits will be very much more gratifying.

The officers of the company, which is called the Orchard Crude Oil company, are: President, J. A. Stroud; vice-president, F. B. Brown; secretary, A. A. Smith, and H. W. Conkling, treasurer.

The company feels, now that operations have begun, that its affairs should be in the hands of a capable management, and for that reason will make an immediate change in control. They will, they say, furnish the public with only true reports of what the well is doing, and will permit no one connected with it to circulate inflated and misleading reports, as has been done in the past.

The reporter certainly saw oil flowing in fair quantity from the well, and saw the boiler being fed with oil furnished from the well. That much has surely been demonstrated, and it has been demonstrated, too, that the sands bear the strongest indications of a paying supply of fluid, but the reporter would not say that it has been demonstrated that oil has been found in paying quantities. That remains to be proven, even though all indications and tests are so favorable.

The journey to and from this well was made by A. A. Smith, secretary; H. W. Conkling, treasurer; John Doherty, a heavy stockholder, and C. O'Brien.

## Ohio Oil Sale.

The Pure Oil company has concluded another purchase of considerable magnitude, securing the Southern Oil company's (T. N. Barnsdall and others) holdings in Monroe county, O. The property consists of leases on 1,400 acres of partly developed territory in the Lewisville and Clear Fork districts, on which are thirty producing wells with a net production of 324 barrels a day. The price paid was \$259,200, or at the rate of \$800 a barrel. The wells produce from the Keener and Big Lime formations. The price paid is considered a fair one. Keener sand production in Monroe county is held at about \$1,000 a barrel.

## The Pacific Underwriting and Trust Company.

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If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

COMPANIES INCORPORATED under any State Laws desired.

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Gold Bonds, interest from two to four per cent, for sale.

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# INVESTIGATION MEANS INVESTMENT

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## Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

### 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

### 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

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SAN FRANCISCO, CAL.



**KNOCKS ROCK ASPHALT.**

**Mayor Rose of Milwaukee Prefers Asphalt to Rock Pavement.**

Mayor Rose of Milwaukee recently sent a communication to the City council, in which he discussed the attempt of the Federal Asphalt company to have the city paving specifications so worded as to admit the use of rock asphalt on the streets.

The following is an extract from this communication:

"In June, 1901, the Conway Paving company applied to have our specifications opened to admit of the use of land asphalt. I took the matter up for investigation and sent inquiries to many of the principal cities of the country. The information I received proved to my satisfaction, and I believe to the satisfaction of every reasonable man who became conversant with the facts, that it was unfit for use, and we refused to open our specifications for that reason.

"Recently the Federal Asphalt company applied to have our specifications opened to admit of the use of rock asphalt. In fact this recent agitation resulted from that application. I sent inquiries to the cities where rock asphalt had been used and made careful and thorough investigation of the subject, and as a result I am firmly convinced that it cannot be used successfully without an admix-

ture with some other kind of asphalt. In conversation with the agent and vice-president of the Federal Asphalt company, only a few days since I challenged them to refer to one street in any city where the pure rock asphalt had been used successfully. They pointed out a street in Columbus, O., laid thirteen years ago, but not by that company. I then inquired why their company had not been successful in the work it did last year at Fort Wayne, Wabash and Auburn, Ind., Decatur, Ill., and other cities in the United States. They replied that they had done work only in three cities, viz: Fort Wayne, Wabash and Auburn, Ind., but admitted that their work had not been successful in either of those cities, charging that it resulted from burning the asphalt in heating it to the required temperature for use, and thus after the record of failure in each and all of the three cities they operated in last year they apply to be admitted to our specifications now.

"I desire that it should be understood that I am in favor of fair and honest competition, not only in the matter of laying asphalt pavements, but in laying all permanent street pavements and in the doing of all public work, but I am not in favor of using inferior material in any case.

"If you will instruct the board

of public works to prepare specifications not naming any asphalt but providing that any asphalt used shall contain certain ingredients such as a certain percentage of bitumen or asphaltum, and the method of mixture, etc., and the degree at which it shall be heated, and containing similar provisions to cover the whole field, and then permit the contractor to bid for work who will furnish asphalt up to the standard prescribed by such specifications you will open the door to fair and honest competition and the city will not suffer by it.

"Our specifications for asphalt in residence districts should be changed. In any event in such localities we do not need a six-inch concrete base, nor one and one-half inches of wearing surface, nor a Hayden block or brick gutter. On the contrary, a street laid with a five-inch concrete base, one-half inch blinder and one and one-half inch wearing surface, extending the asphalt to the curb stone or using a combination curb and gutter would answer every purpose and the expense would be very much less."

**The Kansas Oil Field.**

Probably few people are aware of the extent of the prospecting and development of oil and gas in Neosho county, says Miss Frazier in this week's Erie Sentinel. About 2,000 wells have already

been drilled and more than fifty drilling outfits are now in active operation. Most of the work so far has been in the north and west portions of the county, and has made Chanute the center of the oil and gas development of Kansas. During the past three years that city has almost doubled its population, its property valuation has multiplied several times and the end is not yet. The excitement and activity is gradually spreading over a larger territory. Thayer and Galesburg each have drillers in the field and are bringing in some good wells. Shaw has three rigs running and is right in the belt. Stark is burning natural gas and has a new outfit in search for more. Erie is still punching holes in the earth and the last well brought in is the best yet found here. St. Paul has one good gas well with a prospect for more. Mr. A. H. Chaffee, president of the Central National Bank, of Carthage, Mo., owns a large tract of land south of St. Paul and informs us that he will in the near future put down several wells. Big Creek and Walnut Grove townships each have a few good gas wells and arrangements have almost been completed for a number of wells to be drilled in both Centerville and Lincoln townships. It is only a matter of time until there is a number of good gas or oil wells on almost every tract of land in the county. The work has just begun.

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We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

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Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

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of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

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## THE BURSON ROAD.

An Electric Road from Ventura to Bakersfield.

The Southern Pacific is going to have a formidable rival for freight traffic in the new Bakersfield-Ventura trolley line, which is to be built immediately by Los Angeles and Ventura county capitalists.

Surveys for the line are completed and it is expected that construction work will be commenced within thirty days. The road will be 115 miles long and the estimated time for building it is one and one-half years. While the company expects to do a good passenger business, the promoters are not banking on declaring dividends from passenger traffic receipts. It is the freight end that first appealed to the capitalists who are financing the enterprise and it is the freight question that will be given the greatest consideration when the road is placed in operation.

"We are convinced," says Mr. Burson, "that the marketable products in the country through which our line will pass will give us all the business we can attend to. Much of the hauling, that is now necessary to reach the railroads in Bakersfield and Ventura will no longer be required with the trolley line almost at the door of the farmer and ranchman. We expect to be able to make the trip from Bakersfield to Ventura in four and one-half hours.

"We intend to lay sixty-two pound rails in the valley and the seventy-pound steel rails in the mountains. It will be a standard gauge track and electricity will be the motive power. The heaviest grade will be 3 per cent from Sespe to Mutaw meadow. At the top of the summit on the Mutaw meadow a 5,000-horse power plant will be built. We expect to cross the Sespe river five times, which will necessitate the construction of as many steel bridges. The rock is already on hand for the stone abutments. We shall also cross the Santa Clara river."

The route of the new line will be from Hueneme, which is on the coast, to Oxnard, through Oxnard to Satcoy, to Santa Paula, up the Sespe river, over the Mutaw meadow down the Quean river, over the hills to Sunset and thence to Bakersfield. Mr. Burson says the route as surveyed is through one of the most picturesque countries in the State.

Engineer Purcell is a man of considerable experience in railroad building. He was formerly employed as engineer by the Great Northern railroad and had charge of the building of several important lines for this company. He also spent six years in the employ of the Japanese government, attending to the construction of a government railroad, and a big iron smelter.

Among the leading promoters, besides Mr. Burson, are Major Russell and Eben Smith, both of Los Angeles.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## New Oil Company.

The Lion Rock Oil company has been incorporated. Principal place of business, Los Angeles. Capital stock, \$500,000, with \$70 subscribed and D. C. McGarvin, E. A. Edwards, L. E. Behymer, C. M. Wood, Robert McGarvin and Alfred Walker of Los Angeles, directors.

Subscribe for the PACIFIC OIL REPORTER.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, April 15th:

CARIBOU.			
300 at	80		\$ 240 00
CLAIRMONT.			
100 at	29		29 00
100 at	30		30 00
FOUR.			
500 at	70		350 00
HOME OIL.			
250 at	2 75		687 50
750 at	2 80		2,100 00
INDEPENDENCE.			
1,000 at	13 (B 60)		130 00
1,800 at	12		216 00
JUNCTION.			
1,000 at	06		60 00
KERN RIVER OIL.			
13 at	13 50		405 00
LION.			
6,500 at	07		455 00
MONARCH.			
200 at	26		52 00
2,200 at	27		594 00
MONTE CRISTO.			
50 at	1 37½		68 75
OCCIDENTAL OIL.			
750 at	17		127 50
1,000 at	18		180 00
1,000 at	19 (B 90)		190 00
OIL CITY PETROLEUM.			
3,300 at	31		1,023 00
550 at	30		165 00
PETROLEUM CENTER.			
2,200 at	06		132 00
PITTSBURG OIL.			
200 at	43		86 00
1,100 at	45		495 00
REED CRUDE.			
2 800 at	33		924 00
SAN JOAQUIN.			
25 at	6 25		156 25
SOVEREIGN.			
100 at	42		42 00
200 at	41		82 00
STERLING.			
300 at	3 10		930 00
THIRTY-THREE.			
10 at	8 50		85 00
TWENTY-EIGHT.			
100 at	3 50		350 00

28,415 Shares Amount \$10,385.00

## ALASKERS PACKERS.

10 at 153 75.....\$1,537 50

## NORTH SHORE R. R.

25 at 10 00.....\$ 250 00

35 Shares

Amount \$1,787 50

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.35	
Apollo.....	.39	.40
Asso. Oil Co. Stock		
Trust Certificates..	.20	
Aztec.....	.80	.87½
Bear Flag.....		.10
California Standard...	.10	.15
Caribou.....	.80	.90
Central Point Con.....	.80	
Chicago Crude.....	.25	
Clairmont.....	.30	
Fauna.....	.10	.12
Four.....	.66	.75

Hanford.....	120.00	124.00
Home.....		2.70
Imperial.....	18.50	19.00
Independence.....	.12	.13
Junction.....	.05	.06
Kern.....	5.00	5.25
Kern River.....	12.50	13.75
Lion.....	.06	.07
Monarch of Arizona...	.25	.26
Monte Cristo.....	1.32½	1.35
Occidental of West Va	.17	.19
Oil City Petroleum....	.30	.31
Peerless.....	15.00	15.50
Pittsburg.....	.43	
Reed Crude.....	.32	.33
S. F. & McKittrick....	2.50	3.00
San Joaquin O. & D....	6.12½	
Senator.....	.68	.70
Sovereign.....	.41	.45
Sterling.....	3.00	3.20
Superior.....		.08
Thirty-three.....	8.50	9 00
Toltec.....	.18	.20
Twenty-eight.....	3.40	3.50
United Petroleum.....		118.00
Union.....		64.00
West Shore.....	3.00	
Wolverine.....	.45	

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Ar. St'kton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p		1:28 p
" Fresno	3:20 p	3:00 p		3:15 a
" Hanford	5:00 p	5:51 p		7:50 a
" Visalia	4:48 p			5:00 a
" B'kfield	7:10 p	5:50 p		7:35 a
" Kan. C.		2:31 p		8:02 a
" Chicago		2:15 p		8:47 p

a for morning; p for afternoon.  
8 a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton Local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
Offices—641 Market Street and in Ferry Depot, San Francisco; 1112 Broadway, Oakland.



**Fierce Oil Fire.**

Every able-bodied man and even the women of the little town of Bagdad on the Santa Fe-Pacific division of the Santa Fe worked with buckets and axes very strenuously to fight a fierce oil fire that for a time threatened the town last Tuesday. A lead pipe connecting the pump-house with one of the two huge oil reservoirs belonging to the Santa Fe, which stand near the station houses, caught fire and before it could be extinguished the flames had swept to the tank. In an instant the 500,000 gallons of oil caught fire and a roaring column of flame was sent high in the air. In order to save the second tank and the adjacent buildings, the burning tank was wrecked with dynamite and the oil allowed to escape. The loss to the station is estimated at \$50,000.

**A New Process.**

W. H. Ware, a broker of San Francisco, claims to be in possession of a new process of refining crude petroleum by which he succeeds not only in obtaining from California crude oil a larger percentage of illuminating oil than can be obtained in any other way, but the process is cheaper than any other, and the kerosene burns with absolute freedom from smoke or smell.

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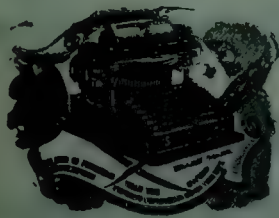
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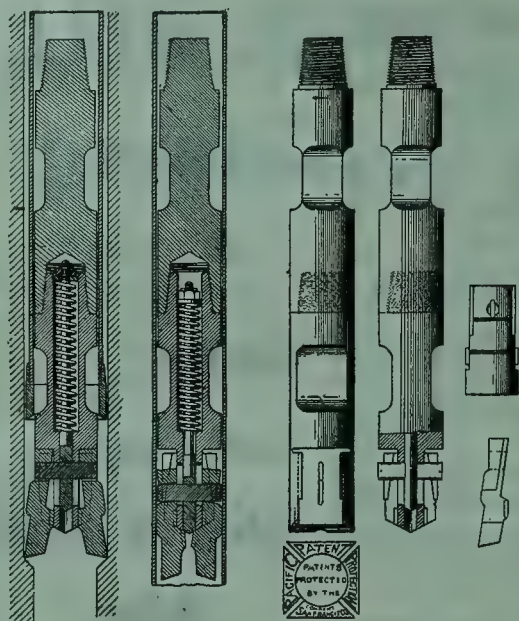
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

These maps are Copyrighted by the publishers, Barlow & Hill, and can only be used by them and their authorized agent in San Francisco, THE PACIFIC OIL REPORTER.

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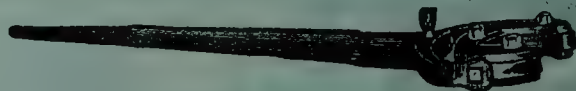
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In order to complete development work shares have been offered at 10 cents up to February 1st. The price is now 15 cents for a limited period. The officers are well-known business men of San Jose, Cal. There is every reason for believing that this company will soon be one of the big producing companies of the Coalinga District.

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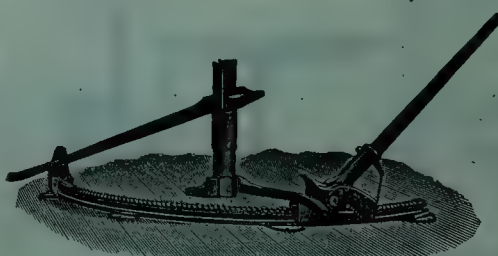
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Vol. 4. No. 25.

SAN FRANCISCO, CAL., SATURDAY, APRIL 25, 1908.

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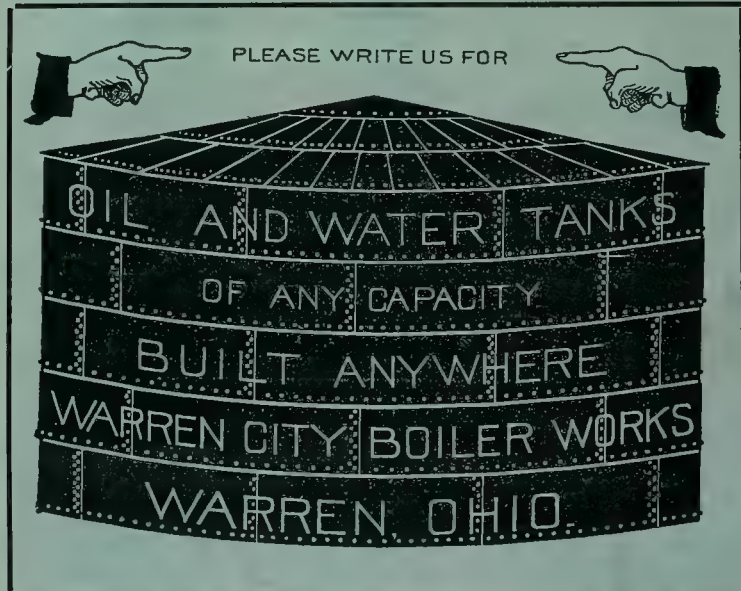
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# PACIFIC OIL REPORTER

VOL. 4. NO. 25.

SAN FRANCISCO, CAL., SATURDAY, APRIL 25, 1903.

PRICE, TEN CENTS.

## OIL FIELDS OF CALIFORNIA.

### Result of An Exhaustive Examination By a Government Expert.

#### The Supply of Oil Pronounced to Be Inexhaustible and New and Additional Oil Fields Will Continually Be Discovered.

The results of an exhaustive examination of the petroleum fields of California have been embodied in a monograph by Geo. H. Eldridge of the U. S. Geological Survey, in which conclusions of the highest commercial importance are presented. While asserting that the supply in these fields is not inexhaustible, the writer nevertheless concludes that the

one developed field of minor commercial importance—that in the vicinity of Eureka, Humboldt county.

The Coast Range, considered as a topographic province, includes all the mountains lying between the great central valley of California and the Pacific ocean. It has no well-defined axis, either topographic or geologic, but consists rather of a number of parallel ridges having a general elevation

Oil City adjacent to Coalinga, the McKittrick, the Sunset and its extension, the Midway, the Kern river, La Graciosa, the Summerland, the Santa Clara valley fields, the Los Angeles field, and those of the Puente hills.

#### COALINGA DISTRICT.

This district extends along the eastern base of the Mount Diablo range for a distance of about thirty miles, Coalinga, the small town from which it is named, lying somewhat nearer the northern end. Three areas of oil development exist, which may be designated the Oil City field, the Kreyenhagen field and the Avenal field, but the first only is of special productiveness. Coalinga is accessible by rail from the main lines of both the Southern Pacific and the Atchison, Topeka & Santa Fe railroads.

The Oil City field is developed about the southeastern terminus of one of the diagonally transverse anticlinal spurs that extend

The oil-bearing horizons of this field are two: one, a sandstone in the lower portion of the shales, that are by some regarded as the upper member of the Tejon; the other, the lower sandstones and conglomerates of the San Pablo. It is estimated that approximately 1,500 feet of measures separate the two horizons. Owing to this distribution there are two distinct areas of wells—an inner, in immediate proximity to the axis of the anticline, and an outer, of more extended area, encircling the point of the anticline in the San Pablo formation, and extending well along the southwest side of the general fold. The oil from the shales regarded as Tejon is of greenish color and varies in gravity from 33° to 38° B.; that from horizons in the San Pablo is brownish black and of a gravity from 16° to 24° B., the higher in the eastern portion of the field. The production from both horizons is large. The depth of wells varies from 800 to 2,000 feet.



General View of the Kern River Oil Field.

conditions under which oil occurs in the known fields are many times repeated elsewhere in the Coast Range and the territory contiguous thereto, indicating that additional fields will be discovered, a view that is strengthened by small wells already drilled and by the wide distribution of petroleum as evidenced by its seepage. Following is an advance abstract of this monograph, which is regarded as one of the most important recent contributions to the literature of the petroleum industry:

The petroleum fields of California, as at present known, lie on either side of the central valley of the State, in the Coast Range, and along the Pacific front. The greatest development has taken place south of the parallel of San Francisco, although northward from this are many prospects and

of between 3,000 and 4,000 feet, with occasional peaks extending to somewhat greater heights.

Structurally the Coast Range consists of numerous parallel anticlines and their corresponding synclines. There is no dominant axial fold, the crust having been crumpled into a close succession of ridges of varying amplitude and height of arch. The topographic trend of the general range from San Luis Obispo north is about N. 30° W., veering to westward south of this. The structural trend of the folds composing it, however, is between N. 20° and 40° W. from the thirty-sixth parallel north, N. 50° or 60° W. in the region of San Luis Obispo, and from Point Concepcion east N. 80° to 90° W. Throughout the entire range it is distinctly diagonal to the coast line, except, perhaps, along the Santa Barbara channel. Faults, of course, occur.

The productive oil fields of Southern California include the

from the Coast Range into the valley of the San Joaquin. The axis here dips rapidly to the southeast, and within ten miles of the higher crest of the range evidence of the fold has completely disappeared beneath the valley deposits. The line of junction between mountain and desert on the northeast side of the fold extends from twenty to thirty miles without conspicuous break. With the exception of severe crumpling in the immediate vicinity of the axis, accompanied perhaps by some faulting and a comparatively gentle flexure on the southern periphery of the uplift in the vicinity of Oil creek, the anticline appears to be unaffected by minor folds. The measures exposed in the heart of the anticline are the massive Tejon sandstones. Encircling these are the overlying shales, and these in turn are followed by the heavy and resistant conglomerates and sands of the San Pablo.

#### M'KITTRICK DISTRICT.

This district lies on the edge of the desert, at the eastern base of the Coast Range, about fifty miles west of Bakersfield. The railway station is McKittrick. The Coast Range in the vicinity embraces a number of parallel ridges, the highest constituting the eastern border of the Carriso plains. From this each succeeding ridge attains a lower altitude, until the outermost line of hills is but a gentle elevation above the general valley. The developed oil field in the region of McKittrick lies along an interior ridge, separated from the outer ridge by a valley  $1\frac{1}{2}$  miles wide. The length of this district is about 25 miles.

The formations involved in the occurrence of oil are in the Monterey and the San Pablo, an unconformity existing between the two. The Monterey consists principally of siliceous shales, with their chelky, earthy, or more



argillaceous modifications. The San Pablo, consisting of the conglomerates, sandstones and clays typical of it, is well developed, and the terrane is marked, as elsewhere, by a deep deposit of dust wherever weathering has been carried to an extreme.

The productive oil wells of this district for its entire length lie within a zone less than a quarter of a mile wide, and in places less than 200 feet wide. Their depth varies from 200 to 1,500 feet, the shallower holes being in the center of the field, opposite McKittrick. The yield is from a few up to 900 barrels, the latter exceptional. In gravity the oil varies between 11° and 17° B. While the narrow, productive zone is persistent in the general directness of its trend—about N. 60° W.—it is, nevertheless, somewhat undulating, according as the axis of crumpling or faulting varies.

#### SUNSET DISTRICT.

This district lies in the southwest corner of the San Joaquin valley, along the eastern base of the San Rafael range, about 35 miles in a direct line southwest of Bakersfield, with which it is now connected by a branch of the Atchison, Topeka & Santa Fe railway. It is also distant from the McKittrick district about 25 miles, but recent developments in the Midway field, the northwestern extension of the Sunset, are gradually diminishing this gap. The Sunset field, like those to the northwest, is developed in the lower foothills of the Coast Range. The physical aspect of the region is that of moderately rugged mountains, 3,000 to 4,000 feet in altitude, bordered by a desert.

Structurally, the strata of the Sunset district, while thrown into an anticline of great extent, presents in detail a succession of folds, those of greatest amplitude lying farthest within the mountains, the general trend of all being about N. 50° W. Faults also exist, but none of large displacement was detected within or near the oil-producing area itself. The greatest crushing has been effected in the shales of the Monterey, but along the desert edge the San Pablo also shows a number of minor flexures, some developed en echelon, to which is due the frequent offsets to be observed in the trend of the oil belt. The general dip of the strata in the oil-yielding territory is northeast or toward the valley. Its direction is, however, modified by the flexures referred to, and by other and local variations in strike.

The wells of the Sunset district attain a depth of from 500 to 1,500 feet, and while there is a similarity in the oil sands, it is questionable whether the same horizon is everywhere the productive zone, for the San Pablo is deposited against a slope of the Miocene, from which it might have drawn the petroleum into several beds abutting it at the plane of unconformity. The wells in the Midway field are somewhat deeper than those in the Sunset area proper, having been drilled farther out on the slope of the anticline. The especial interest of those wells is their position along the exterior of the anticline at a very considerable distance from both axis and end, and in a locality where the strike and dip are apparently maintained with great regularity. The gravity of the oil

in the Sunset district varies from 11° B. in very shallow wells in the southeastern part of the field to 17° or 18° in the deeper ones in the northwestern portion.

#### KERN RIVER FIELD.

The Kern River field, the most productive in California, lies about three miles north of Bakersfield, in Kern county, near the southeastern extremity of the San Joaquin valley. As at present developed it occupies an area north of the river of approximately 12 square miles, extending but a few hundred feet south of the stream. The general trend of the oil-yielding zone is N. 40° W., coincident with the strike of the rocks. The field has excellent railway facilities, and an 8-inch pipe line to Point Richmond, on San Francisco bay, about 300 miles distant, is under construction. In addition, there is a tank storage capacity in the field of nearly 2,000,000 barrels. Refineries, also, are nearing completion. The production of the field at the time of the writer's visit was approximately 3,000 cars a month, actual shipments.

The surface geology of the Kern River field is comparatively simple. The principal geologic formation of the region adjacent on the east is determined by its fossils to be of lower Miocene age. This passes beneath the productive area, but whether upon more detailed examination some of the superficial beds of this area will not be found to be representative of the San Pablo is an open question. The strata of the lower Miocene include conglomerates, sandstones and clays, the several members of this series into which it may be differentiated upon physical or other grounds arranging themselves in broad or narrow zones of outcrop, according to the thickness to which they have been developed and the angle of their always gentle dip. But while the differentiation of horizons mentioned is comparatively distinct over broad areas, there are local gradations from one zone to another that frequently render it impossible to trace a maintenance of regularity in the succession of strata. The entire series of beds, in fact, has the appearance of a shore deposit along the granitic range of the Sierra, in which currents and waves have played their part in the distribution of materials, with the result that a sandstone at one point may thicken or thin, and, according to the conditions, be replaced by clay or conglomerate, which, in their turn, again act in like manner. This relation of the sediments one to another, which is evident from the surface outcrops, is especially emphasized in the hundreds of wells bored in the 12 square miles of the Kern River field. Even in the wells of a single company, where the records have been uniformly kept, this variation of sediments is a conspicuous feature, and it is impossible for one to say from the record of one well what may be expected in a hole to be drilled at a distance of 200, 400 or 600 feet from it. A feature that is to be considered in this connection, however, is the fact that because of the lenticular form assumed by the deposits of sands, gravel and clays, a certain interlocking of sediments has taken place that has permitted a free circulation of oil throughout the

entire thickness of the oil-bearing zone, rendering it remarkably productive.

A study of the well records of this field points to the existence of a general body of sands and gravels from the surface to a varying depth up to 200 feet. Beneath this there is usually a stratum of blue clay, also varying in thickness from a few feet up to 100 feet. This clay is impermeable to the waters which nearly everywhere exist in the sands above. Below the clay in all wells is an alteration of sand and clay without regularity, and varying in their relative thicknesses from point to point. These sands constitute the oil reservoir of the field, and as high as 400 or 500 feet of them have been encountered in a single well. In a great many wells 200 or 300 feet of oil-bearing sand are found. Below the oil sand is another thin, blue clay, in which the casins are, as a rule, landed. Occasionally a well has perforated this, penetrating a water-bearing sand beneath, and in one or two instances holes have been carried to still greater depths, penetrating a second clay underlying the oil sands, and finally passing into a mass of sand and gravel which yields an enormous amount of water. Many of the wells of this field at first flow, but sooner or later all require pumping. The production is from light up to 500 or 600 barrels a day, according to the age of the well, its condition and the amount of sand upon which the well has to draw. The gravity of the oil varies from 13° to 17° B., the

lighter being found in the western portion of the territory. The color of the oil is black.

#### LA GRACIOSA DISTRICT.

This district lies in La Graciosa hills, ten miles south of Santa Maria, in the northwestern part of Santa Barbara county. The hills attain an altitude of 500 or 600 feet above sea level, and their trend is northwest-southeast, coincident with the structural development of the country. Their surface aspect is that of grassy pasture lands or of areas more or less densely covered with the live oaks peculiar to the Pacific Coast. The region is rendered accessible by a line of railway to Santa Maria and San Luis Obispo.

The structure of La Graciosa hills is that of an anticline, the axis of which has a general trend of N. 55° W. The Monterey shales, which occupy its heart and are exposed over considerable areas, are greatly contorted, but the younger sands of the Pliocene, where mantling the older formation, dip to the northeast and southwest from but 2° to 25°, according to their position on the flanks of the fold. A marked unconformity exists between the Pliocene and Miocene deposits, and it is impossible to suggest the surface configuration of the sea floor upon which the younger of the two formations was laid down.

The developments in the fall of 1902 were chiefly confined to the Carreaga ranch, on the southwestern slope of the anticline and hills, but drilling was being prosecuted at a number of points west

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of the producing area. On the Carreaga ranch the wells start in the Pliocene conglomerates and sandstones, passing into shale below, and thence to the oil sands. Whether the shale was of the Monterey or not is a question for future determination. Difficulty will attend its solution because of the uncertainty of measurements by reason of the uneven surface attendant upon the unconformity existing between the silicious shales and the younger sands. Texture, however, may aid.

The wells of this territory are large producers and the oil is of high gravity.

#### SUMMERLAND FIELD.

This oil field extends along the Pacific shore for nearly a mile in front of the small village of Summerland, five miles east of Santa Barbara. The wells are located on the bluffs, the shore, and upon wharves extending into the sea for nearly a quarter of a mile.

The Summerland oil field is de-

veloped in strata having a southerly to southwesterly dip of from 30° to 85° or 90°. It lies at a distance of approximately one mile from the axis of the anticline. The source of the oil is one or more sands of the formation believed to be the equivalent of the San Pablo, at a distance not far from its line of union with the underlying Monterey. The well records in the main point to a body of oil sand from 80 to 120 feet below the derrick floor, and to another 40 or 50 feet below this, but many of the wells extend to depths of 400 or 500 feet. The oil throughout the field is mixed with a considerable amount of water, which is probably due to careless methods in drilling, although it may be from the shallow depths of the wells that sea water has penetrated to the productive beds. The gravity of the oil in the upper and lower sands is said to be approximately 10° and 14° B. respectively. The yield of the Summerland wells averages 1½ or 2 barrels a day, although occasionally a well is found that

#### SANTA CLARA VALLEY.

The valley of the Santa Clara is of structural development, modified by erosion. It heads in the San Gabriel range and in the mountains to the north connecting this with other portions of the Coast Range and with the Sierras, and, after a westerly course of 75 to 100 miles, enters the Pacific a little south of the town of Ventura. The valley is given over to agriculture, but the mountains on either side are the loci of many important oil fields.

#### REGION NORTH OF THE SANTA CLARA RIVER.

The mass of rugged mountains north of the Santa Clara valley, forming the watershed between it and the great central valley of

shales, the Monterey and the equivalents of the San Pablo, the last occupying vast areas extending from 15 to 30 miles or more east of the heart of the fold. On the north the anticline is limited by other folds of equal importance. On the south the flexure is modified by a succession of sharp folds of greater or less extent, and by faulting, an especially important line of fracture passing east and west in front of San Cayetano mountain, extending westward into the Ojai valley and eastward, perhaps, crossing the Santa Clara valley. Numerous branches are given off from the fracture, particularly toward the west.

It is in such an assemblage of strata, with the intricate folding to which they have been subjected, that the oil wells of the region under discussion occur. In horizon the oil is drawn from the lower, middle and upper portions of the Sespe red beds, from the rusty series at the base of the

that of new ones rises considerably above this.

#### REGION SOUTH OF SANTA CLARA RIVER.

On the south of the Santa Clara valley, separating it from that of the Simi, are the Santa Susana mountains and their westward extension, Oak Ridge. The former of these is in direct continuation also with the San Gabriel range, farther to the east. This linear series of ridges in its entirety may be regarded as a unit both topographically and structurally. The San Gabriel range has an altitude of over 5,000 feet, the Santa Susana mountains of nearly 4,000 feet, and Oak ridge rises a little above 3,000 feet. The northern face of the uplift is particularly rugged.

While the Santa Susana mountains and Oak ridge may be regarded as a structural unit, there are, nevertheless, within the limits of the uplift many anticlinal flexures, at least four of which derive



One of the Gushers on the Santa Fe Lease—Fullerton Field.

California, represents the convergence of the several ranges which to the northwest maintain a conspicuous individuality. Pine mountain, 8,826 feet in altitude, is their culminating point. The area thus occupied is a part of that recently set aside by the United States government to be known as the Pine Mountain and Zaca Lake Forest Reserve. It is accessible only by trail, and is almost wholly uninhabited. The southern edge of this great range is one of the important oil fields of the Pacific Coast.

The structure of the region is that of an anticline of very considerable proportions, modified by subordinate folds and faults of the utmost intricacy. Its axis has a somewhat irregular trend, varying from N. 70° W. to N. 80° E., the principal curvature occurring in the hills opposite the town of Piru. The heart of the anticline lies in Topa Topa mountain, and is occupied by the series of Eocene quartzites and shales. Around these circle successively the Sespe red beds, the lower Miocene

lower Miocene, and from sandy measures in the overlying shales; from the great sandstones which succeed and are associated with the shales of Monterey type; and, finally, from the equivalents of the San Pablo beds themselves. In addition, oil is known to occur in the Eocene quartzites forming the heart of the anticline. Fifteen thousand feet of strata, therefore, yield petroleum at one point or another in this field. The distribution of the developed oil areas is either in a broad sweep about the axis of the main anticline itself, in close proximity to the axes of some of the subordinate folds, or along one or more of the great fault lines of the territory, such, for instance, as that south of the San Cayetano mountain and extending westward through the Silverthread district into the Ojai valley. The wells of this field vary in depth from 1,000 to 2,000 feet. The oil is said to have a minimum gravity of about 12° B., and a maximum of about 25° B. The yield of old wells varies from 1 to 20 or 30 barrels a day, though

especial importance from being the loci of highly productive oil areas. Of these anticlines one extends from the western end of Oak ridge for fully three quarters of its length, the axis lying in the lower slopes bordering the Santa Clara valley. The second, third and fourth anticlines, instead of paralleling the general ridge, lie diagonally transverse to it and in echelon with one another. The western of these extends along the easterly fourth of Oak ridge and crosses the divide in the gap between it and the Santa Susana mountains; the middle anticline follows diagonally the northern face of the Santa Susana mountains, crossing the divide a mile or two west of the low point between them and the San Gabriel range; the eastern flexure conforms to the western extremity of this latter range, its axis, however, passing into the lower slopes of the Santa Susana mountains about a mile north of the middle anticline. In addition to the foregoing are several intermediate flexures of minor importance. Faults, also,



are present, the most prominent region of fracture and general disturbance being that of the Torrey wells, opposite the town of Piru. It is noteworthy that the line of this disturbance is in the direct trend of one to the north of the Santa Clara that may prove to be connected with the San Cayetano fault.

The productive oil well of the Santa Susana mountains and Oak ridge lie in proximity to the axes of the anticlines or to the zones of crushing described. The horizons from which the oil is derived include one several hundred feet below the lowermost sandstones exposed in Oak Ridge, another, perhaps, these sandstones themselves; a third, some of the sands in the brown or gray banded shales; and a fourth, possibly the lower beds of the probably equivalent of the San Pablo formation. The depth of the wells varies from 1,000 to 2,000 feet, according to location and the strata pierced. Their yield has been much greater than at present, except in instances where the territory is comparatively new. The gravity of the oil varies from 14° to 40° B., the former in the eastern portion of the field, the latter in certain of the wells in front of the Santa Susana Range and Oak ridge.

#### LOS ANGELES FIELD.

Los Angeles occupies an area about eight miles square, the greater portion lying west of the Los Angeles river at its debouchment from the low hills which to the west pass gradually into the Santa Monica range and to the east into the San Rafael hills and the Verdugo mountains. The Elysian Park hills, north of the city, attain an altitude of about 750 feet above sea level, about 500 feet above that of the city itself. Their trend is northwest-southeast, their southwestern eastern slope abrupt and paralleling the Los Angeles river. The area of productive oil wells extends in a belt one-fourth of a mile wide from a point near the river at the northern edge of town to the western limits of the city in the vicinity of Third street, a distance of about 3½ miles. Still farther to the west, eight or nine miles beyond the municipal boundary, are a half dozen more wells that may prove to be in an area structurally related to the Los Angeles field proper.

The structure of the Los Angeles field is anticlinal, the axis of the fold lying along the river valley above the city, its direction approximately northwest-southeast. The extent and precise nature of the anticline is undetermined, but the region of Los Angeles is apparently near the east-

ern end of the fold of stratification of these sandstones and of the overlying shales are traceable into the hills east of the river, where they can turn northward, cross the Arroyo Seco into the San Rafael hills, and thence veer to westward. The dip in the latter territory is northeast, the opposite of that in the same formation southwest of the river. Locally the anticline is modified by subordinate flexures, some of which are of important significance. Faults also are present.

The Los Angeles oil field is developed in the strata believed to be Pliocene, on the southern leg of the general anticline. The trend of the productive belt, however, instead of conforming to the axis of the main fold, follows the strike of the formations on the south of a subordinate fold divergent from the main flexure, and hence has assumed a direction closely approximating east and west. Evidence of this subordinate flexure and of the syncline which separates it from the main fold is to be found in the northwestern portion of the city. The average dip of the strata adjacent to the oil belt is between 30° and 50°, but local disturbances of the beds, sometimes marked, are found here and there, and it may be that faulting, too, has played its part in the accumulation of oil in the field.

The Los Angeles field was one of the earliest developed in California, and the lapse of time since the inception of drilling renders almost futile present-day attempts to obtain reliable data concerning the conditions of occurrence of the oil. There exist, however, the reports of the California State Mining Bureau, in which the progress of development has been well recorded by Mr. Watts. It is sufficient here that the wells probably draw their oil from two, three, or more horizons in the sands and arenaceous clays that overlie the siliceous shales. The general depth of the wells is from 600 to 1,200 feet. Their individual production is small compared with many in the great fields of the State, and, moreover, they show a gradual decrease year by year. This, however, has been partially compensated by the product of new wells. The gravity of the Los Angeles oil varies between 11° and 18° B.

#### PUEENTE HILLS.

The Puente hills are a low east-west anticlinal ridge about twenty-five miles long and of varying breadth, their western end lying ten miles a little south of east from Los Angeles. The altitude of their highest point is 1,655 feet above sea level. Their slopes are comparatively smooth

and well grassed, and in certain localities there are limited areas of oaks. Tributaries of the San Gabriel drain them on the north, and of the Santa Ana on the south, but for most of the year the stream courses are dry.

The structure of the Puente hills is that of an anticline modified by numerous subordinate flexures, the axis having a general trend of N. 65° W. The western half is greatly contracted in its width, while the eastern half is correspondingly expanded. Faults, also, have entered to an important degree into the structure of the hills, especially along the southern slope. Of these, or of an excessively sharp crumple accompanied by minor anticlinal flexures, an especial instance is to be found in a line of disturbance that passes immediately north of the Santa Fe wells, crosses to Brea canyon, and is, in fact, traceable at intervals over the entire distance to the region of the Whittier wells. The Santa Fe and Brea canyon wells are close to this line of disturbance; perhaps, also, the wells east of Whittier. The Puente wells, lying between the latter and those of Brea canyon, are situated at some distance from the fractured zone, yet are to be found in an area of considerable crumpling, immediately adjacent to the axis of the main fold. Geology in the immediate vicinity of the Santa Fe, Brea canyon, and Whittier wells is rendered still more complex by the proximity of the line of unconformity between the San Pablo and underlying formations.

The horizons believed to furnish petroleum in the Puente hills are:—For the Brea canyon wells and most of those lying east of Whittier, the sands of the San Pablo formation; for the Santa Fe, the strata of uncertain horizon in the disturbed area at the base of the hills in their vicinity, in part, at least, of the Miocene; for the Puente wells, probably the more sandy horizons in the great body of shales constituting the heart of the main anticline in its more contracted part, the precise horizon of which in the Miocene is somewhat indefinite.

The wells in the Puente hills are of wonderful productiveness, the yield of many rising above 200 barrels a day, and in instances approaching 1,000 barrels. As in the case of all fields, however, the production falls off in greater or less degrees, according to the life and condition of the wells and the territory drained. The depth of the wells is between 900 and 3,000 feet. The gravity of the oil varies from about 15° to 33° B. In color, both the black and green varieties exist.

The region is connected by pipe-

line and rail with the main railways.

#### SUMMARY.

From the facts established in the preliminary examination of the oil fields of California it appears—

That the productive areas have been in every instance developed in connection with anticlines, either in proximity to their axis, along their flanks, or about their terminals.

That in several instances faults, or intense disturbances of the strata, have accompanied the folding, causing along their lines interstitial space in which petroleum could accumulate, and thus resulting in an increased supply and yield.

That there are at least ten or twelve horizons in the 20,000 feet or more of strata from Eocene to Pliocene that carry oil in quantities of economic value.

That the reservoirs are either conglomerates, sandstones, or the arenaceous members of the great shale groups in the Miocene.

That oil derived from shales is generally lighter than that of which sandstones and conglomerates are the source.

That the stratigraphic and structural conditions under which oil occurs in the known fields are many times repeated elsewhere in the Coast Range and the territory contiguous thereto, from which it may be argued that additional fields will in turn be discovered; and that this view is strengthened by small wells already drilled and by the known distribution of petroleum as evidenced by its seepage.

That the supply is exhaustible.

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### All Reports as to the Failure of the Line Are Absolutely Unfounded.

**There Have Been a Number of Breaks, But These Were Expected and Always Occur Before a New Line Is Ready For Business.**

Just because the oil is not flowing into the tanks at Richmond from the Bakersfield pipe-line a number of reports have been put in circulation that the line was an absolute failure, that the oil could not be made to flow through the pipe on account of its heavy gravity, that the pipe was so weak that it could not stand the pressure necessary to force the oil through, that the Standard had practically come to the conclusion that the pipe-line could never be made to work, and that the project that had cost so much money—\$2,000,000 at least, would be abandoned, and that the company would be obliged to obtain all its oil by means of railroad transportation from Bakersfield.

It is surprising how these and similar reports have been spread broadcast, and how many people have believed them.

It is enough to say that every one of these reports relative to the failure of the pipe-line is false. The only element of truth in the entire bunch of misrepresentations is the statement that the oil is not yet flowing into the tanks at Richmond. It can also be stated as a fact that the company is having expected and anticipated trouble in sending the oil through the pipe.

The trouble—all the trouble, is in the pipe, and not in the kind of oil used or in the inability of the pumps at the stations to send the oil through.

The pipe has burst several times. It was expected this would happen. It always happens in a pipe-line before the weak places are found, the defective lengths of pipe are taken out and new and perfect lengths put in place of the defective.

In West Virginia a pipe-line was laid from the Sistersville oil district 100 miles long. In testing this line and in sending the first oil through it the pipe burst 240 times in as many places in the 100 miles of its length. After numerous breaks had occurred a lot of the wise ones declared that the pipe could never be made to work successfully and that the project was a rank failure. This line is now in perfect order.

That is just the case with the Bakersfield line. A number of breaks have occurred, and more will probably occur. All pipe is

more or less defective, especially in the seam where the pipe is welded together.

In the case of the Bakersfield line in several instances these breaks have occurred on account of the pipe becoming clogged from substances such as sacks that somehow have been placed or left in the pipe as it was being laid.

The line is practically only a series or succession of lines, each one only twenty-eight miles long and absolutely complete in itself, having no connection with the section north or south of it. As soon as one section is completed, tested, the breaks repaired, new lengths put in where necessary, and the line put in perfect condition, another section twenty-eight miles long is taken in hand and perfected.

That is all there is about it. It is a sufficient proof that the line will pump the oil through it all right as was intended, to state that in one run of only seventeen hours over 6,000 barrels were sent through the line without any trouble. That does not look like a failure.

It is a safe proposition to gamble on that the Standard knows its own business a good deal better than a lot of people who never saw a pipe line, do not know anything about one, but who howl

that it will not work for the same reason they howl about everything else. Some people are natural-born knockers, and will knock and continue to knock until they have the knocking part taken out of them. These people will say the oil will never be brought through the line until they see it pouring through the pipe into the Richmond tanks.

The line is working just as it was expected to work—not much worse or much better. The line experts do not know when every section will be completed, but if they have unexpected good fortune with the sections yet untried the oil will be at Richmond soon after the first of May. It would not be among the impossibilities if it took until the first of June. If it does take that long, and if the pipe bursts in fifty places, the Standard people will not do half the worrying that a lot of men will who have no interest in the line, but who take apparently a lot of pleasure in saying "It won't work."

If these folks will chase themselves round a block or two or go way back and leave the company to mind its own business, and not continue spreading a lot of fool reports about, the oil men will take up a collection in their behalf. This continued yelling about "failure" does no earthly good, has a depressing effect on oil stocks, and should be stopped right now. Some one had better do the club act and break a few heads.

If everything goes all right the oil will probably be at Corcoran by the end of this week. Corcoran is the pumping station in the edge of Kings and Tulare counties, and is the third station on the line. Possibly the oil may reach Lethent, the next station before this paper reaches its readers. Whether it does or not there is no reason for prophesying the pipe line is a failure.

Give a hen a chance to hatch before saying her eggs are rotten.

### New Oil Burner.

The steam schooner Iaqua, which arrived last Sunday, twenty-three hours from Eureka, completed her first round trip as an oil burner. The new system worked to perfection. The Iaqua brought down 7,898,000 shingles.

### JUST RECEIVED

#### MAPS OF THE KERN RIVER and COALINGA OIL FIELDS

These maps are just out and show all the holdings of these fields, wells drilled, wells drilling, tanks, pipe lines, names of property holders, etc. They are the only correct maps of these fields published. For sale in San Francisco only by the

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Published Weekly  
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Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco  
Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
A. R. Derge & Co., Salt Lake, Utah.  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
11 Columbia street, Boston, Mass.  
20 Broad street, New York City.

SATURDAY.....APRIL 25, 1903

## The most important document that has ever been published by the United States Geological Survey is the report of Government Expert George H. Eldridge in regard to the present conditions and future possibilities of the California oil fields.

Mr. Eldridge, in 1902, gave a most careful and thorough personal examination of the developed and undeveloped oil fields of the State, and the task was one that occupied his entire time for several months.

He became acquainted with many of our most experienced and practical oil men, all of whom unite in the opinion that of all the oil experts who have visited this State, Mr. Eldridge was the peer in practical as well as scientific and theoretical knowledge of the geological conditions that characterize the oil fields.

In view of his undoubted ability as an oil expert the oil men of California can well congratulate themselves on the high opinion held by Mr. Eldridge of the value of our oil fields, and particularly on the fact that he deems that development work thus far accomplished has but proved that the oil territory is much more extensive than the most sanguine prospectors have dared hope, and that the drills thus far sent down have but tapped the edges of vast deposits of crude petroleum that underly the greater portion of the Golden State.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

During the past two years systematic and energetic efforts have been made to develop the oil fields of Japan. These efforts have been met with a fair degree of success, as is noted in the interesting account of these fields in another column.

The price obtained for crude oil is a little over five dollars per barrel in Japanese gold. The total production last year was 1,491,238 barrels, and this year will see considerable increase over these figures.

According to the article above referred to, which is written by a Japanese prominent in the oil industry there, the Standard Oil company has not met with its customary success in this field, the large Japanese companies having been able to obtain control of the main oil output.

The outlook for the oil industry in the Orient is very bright. There seems to be no lack of capital and development work is progressing on an extensive scale.

## A fire on Spindle Top, which started at 1 o'clock on the morning of April 15th, did damage estimated at from \$800,000 to \$1,000,000.

Two hundred and sixty-five derricks were lost. Two hundred rigs were on the producing wells. The fire started from a lantern at the Caldwell Oil company's well. The fly-wheel of the engine struck the lantern and ignited the derrick and the flames spread with tremendous rapidity, three blocks, number 36, 37 and 38 being in ashes by 3 o'clock.

No effort was made to extinguish the fire for it was impossible to get within a hundred feet of the flames. No one was injured.

It is estimated that two-thirds of the companies in the burned districts will be unable to recover from the damage done by the fire.

Indirectly this disastrous conflagration in the Beaumont field will have a more or less bad effect on the California oil industry.

While the fields of Texas and California are widely separated yet the two are intimately connected by business ties. They are not rivals in the oil business to hardly any extent, as the oil from the two states is sent to different consumers, yet the increased demand and consumption of Beaumont oil increases the demand and consumption of the California product.

The railroads, for example, use California oil until they reach the territory supplied from Beaumont, and vice versa. The increasing use of California oil has tended to greatly increase the consumption of Texas oil, and in turn any disaster that may effect the Beau-

mont producers has a depressing effect on those of California.

It is to be hoped that the losses resulting from the recent great fire are but temporary, and that the actual production of the field has not been lessened.

## WILL USE OIL.

The Southern Pacific to Oil Seventh Street, Oakland.

The information has leaked out that the Southern Pacific company plans to make quite an improvement along its line on Seventh street, Oakland. The thoroughfare and track bed will be graded to the official grade, then sprinkled with crude petroleum and rolled, which will give them a clean, hard and dustless road surface through the city.

The use of crude petroleum for sprinkling is no longer an experiment, and, in many portions of the State, are found streets that have been treated with a sprinkling of oil and rolled and the result is a surface equalling that of asphaltum pavement.

In the past the Southern Pacific company has sprinkled the street each night with salt water during the summer months, but this was found to be very injurious to the rails and has been definitely abandoned. By the use of crude petroleum, the same end will be achieved, which will be more durable and lasting. It is understood that this work will be commenced shortly.

## Santa Fe Oil Burners.

Announcement is made from the headquarters of the Santa Fe system in Los Angeles that that road would soon install oil-burning locomotives on the Seligman-Winslow division in Arizona adding about 146 miles to the mileage now covered by oil-burning engines on the Santa Fe system. The change will increase the Santa Fe's consumption of fuel oil from 30,000 to 35,000 barrels per month. The company will then be burning a total of from 140,000 to 150,000 barrels, all of which is supplied by its own wells in this State.

## Efficiency of Oiled Roads.

Those who doubt the efficiency of oiled roads for both winter and summer, especially for light vehicles, should inspect the Julian street road to Alum Rock. The roadbed is about as near perfect as one can find in Santa Clara county. The Journal's faith in oiled roads has never wavered. It recognizes that that method of road-making is yet in the experimental stage, but the experiment is bound to result in a great improvement of our highways when practice has made the work perfect.—Santa Clara Journal.

Subscribe for the PACIFIC OIL REPORTER.

## IT "WARPED" THE HOLE.

Peculiar Effects of a Charge of Nitro-Glycerine in a Kansas Well.

The drillers, shooters, field men and friends who attended the shooting of a well on the Beach land, now being operated by the Rex company, this morning (April 7) narrowly escaped a catastrophe and are very busy thanking their stars this afternoon that they were so lucky.

The two charges of nitro-glycerine had been lowered into the well and before they could be touched off the oil had to be baled out as the hole was filling fast. The baler was worked rapidly and before the drillers were aware of it, the baler came up out of the hole with one of those long shells of nitro-glycerine hanging to the derrick. The dart is on the bottom of the baler and is shaped like the point of an arrow. It had caught on the rim of the shell and pulled it the full 720 feet to the top of the well without exploding the charge. Kaney was running the baler and the minute he saw that long tin shell come up out of the hole, he let go of the whole thing, and yelling a warning, ran for dear life. The shell and the baler dropped back into the hole with lightning rapidity and the charge went off as it went down. There was the greatest scatterment ever seen in the Neosho valley.

No damage was done the rig or any of the men, but the casing was lifted and the hole is probably more or less warped. It is not thought the well is injured any. It is a good oiler.—The Chanute Sun.

## The New Franklin.

When the plans which have been formulated by the New Franklin Oil and Refining Company of Los Angeles, Cal., have been carried out, there is every reason to believe that the company will have a plant which will prove to be a splendid dividend earner. Since June, 1902, the company has paid 1 per cent a month on the par value of \$1.00, the profits being made from the refining of crude oil and the sale of the asphalt and by-products. The company is now busily engaged in installing a plant for the manufacture of felt paper to be saturated with asphalt for roofing purposes. For several months this work has been going on, the paper being purchased in the East. With the equipment of its own a material saving will be effected, and the dividends should eventually be materially enhanced. The company has also acquired the property of the Park Crude Oil Company of Los Angeles, and will be able to produce a goodly proportion of the crude oil which it will use at less than one half the present cost. The combination will make a most effective one and should prove an excellent investment. The additional issue of shares to raise the funds necessary for this work are being handled by C. M. Hatcher and Company, No 262 Washington Street, Boston, Mass.



## JAPAN'S OIL INDUSTRY.

### Active Development Work is Now Being Extensively Carried On.

Increasing Demand for Oil Has Stimulated Development So That the Production is Now 1,500,000 Barrels Yearly, and Increasing.

The following article is contributed for the PACIFIC OIL REPORTER by Mr. I. S. Asada, of Kobe, Japan, and who is prominently connected with Japan's oil industry. It is valuable in that it contains the first reliable facts ever published in America or elsewhere concerning the remarkable growth of the oil industry in Japan, and shows how extensive and thorough are the attempts being made to establish the oil industry of that empire on a firm and permanent basis, with every prospect of ultimate and complete success. The article is as follows:

Japan is one of the few countries where petroleum is found in somewhat large quantities. So far wells have been located in the province of Echigo, near Nugata and Naoztsu, in the Shiznoka district, and in the various parts of the Hokkaido (the extreme northern island of the empire.) The first named districts are considered the most valuable and profitable in Japan.

The total production of the country in 1886 amounted to 40,553 "kokus" (1 koku equals 181 litres or forty gallons) and rose in 1893 to 94,155 kokus. From 1893 onward the production increased by leaps and bounds. The increase from 1889 to 1900 was from 474,406 to 767,093 kokus, which was almost half of the total import of foreign oil in the latter year, amounting to 68,842,324 gallons. No European invention has come into such general use in Japan as the kerosene lamp, which forms an indispensable part of even the poorest households now-a-days. The strides made are enormous if one considers that in 1868 the import of oil only amounted to 31,946 gallons.

In the province of Echigo petroleum wells have been known since time immemorial, oil having been offered to the feudal lord of Echigo as "burning water" for illuminating his palace; a primitive torch was used at that time, some one thousand and two hundred years ago. Also it is said that in Hokkaido in olden times the oil even flowed into the strait of Soya and had considerable effect in calming the stormy sea thereabouts.

The commercial exploitation of these natural treasures commenced when in 1871 the Nippon

Seikiyu Kaisha (the Japan Petroleum Oil company) was formed, with a capital of \$750,000. For many years, however, the expected profits were not realized. A few years ago, the oil fields of Katsunoyama, Naganime and Kamada, were discovered, and the industry has grown so rapidly that in 1900 it comprised no less than ninety-eight companies, the total capital being about \$37,500,000.

Numerous subsidiary industries followed the development of oil fields such as the manufacture of iron pipes, etc. The evils of so many small and financially weak concerns were evident; but few far-seeing men, who recognized this, were unable to bring about a combination of companies. The necessity of this step being taken was only felt when in 1900 the International Oil company entered the field.

This new concern was an offshoot of the Standard Oil company, which holds the majority of the shares, but there is also Japanese capital in the enterprise. The intention of the new company was to annihilate the competition of the small Japanese companies, and thus not only to monopolize the import of foreign oil, but also the home production, which was now by no means any more an important factor.

The new company at once entered into the field of competition with the large capital of \$12,000,000. Its buildings in Naoyetsu covered an area of 100,000 tsubos (1,200 tsubos equal one acre) and its refining plant was capable of refining daily 2,000 kokus of crude petroleum—i. e. the whole output of the country at the present time.

Victory for the new company seemed merely a question of time, and there was naturally a great uneasiness amongst the Japanese companies. Soon an amalgamation of the smaller companies with the larger ones was talked of. Of the latter three took by far the front rank as regards capital and the extent of their activity. They were the Takarada Oil company, the above mentioned Nippon Seikiyu Kaisha, and the Zo-o company.

Amongst the three the first negotiations took place in the spring of 1901 at the instance of Count Okuma, but this fell through. At

length the Takarada company, the largest and the most powerful of all the Japanese companies, took the matter in hand. The capital of this company is over \$1,500,000. It owns 160 oil wells, three refineries in Nagoaka, and two in Kashiwazaki, which are capable of refining 850 kokus of crude petroleum per day. The company has business connections all over Japan, and with China and Korea. In 1899 the company had already bought up fifteen of the smaller companies, and it was this company which now worked with special zeal in the direction of a combination. But the negotiations with the two other large companies completely failed.

The Zo-o company had been founded in 1894 with a capital of \$75,000. Having to encounter great financial difficulties in the beginning, the company nevertheless soon made considerable profits, especially after purchasing good oil fields in Kamada, province of Echigo. The Takarada company's propositions were favorably received only by a section of shareholders. A strong faction favored an amalgamation with the International Oil company with which the company had already had business connections, inasmuch as it had contracted to sell 6,000 kokus of crude oil monthly to the American concern.

The upshot of the negotiations was that the International company took over all the property and rights of the Zo-o company for \$575,500. Naturally this going over to the enemy caused great indignation among the Japanese companies and was even denounced as "treasonable." The amalgamation negotiations of the Takarada and Nippon companies again proved fruitless. The latter's holdings aggregate in all 15,000,000 tsubos (1,200 tsubos equal one acre) capitalized at \$2,500,000. Its two refineries at Amaze and Kashiwazaki are capable of turning out over 200,000 kokus of petroleum per month, and it has also its own plants for the manufacture of iron pipes.

It will be seen that the idea of a large Japanese syndicate has not yet been realized—on the contrary, the dreaded preponderance

of the International company has not come about. In fact the American company has not met with any success. It bought oil fields which yielded only a small product, so that it had to buy oil for its large refineries. But the supply was nevertheless not sufficient to make its extensive establishment pay. Its difficulties are partly due to the fact that its competitors are buying up all the crude oil coming into the market at prices which the International company cannot compete with. It is surprising and gratifying for the Japanese companies, that they can make large profits while the American company is unsuccessful. The Takarada company paid a dividend of 45 per cent for the last half year, and the Nippon company 32 per cent for the same period, while the International company so far has paid nothing. The company has now withdrawn from the field and invested its capital in cotton-spinning.

There are at present twenty-nine wells being drilled; fifty-two flowing wells in Nutsu district, Echigo, and 108 wells drilled in Kazusa district, Echigo. There are 177 flowing wells in Kazusa. The total average production of the Echigo fields is 705 "kokus" per day. Crude oil costs from \$5.20 to \$5.30 per "koku" (forty gallons) in Japanese gold, in the district. The production for last year was 15,658,000 "kokus" (1,491,238 barrels) and it is expected that this year's output will show a slight increase over that of last year.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

Warren Hauser, who left for Orca, near the mouth of the Copper river, on March 19th, to take up oil lands for a Tacoma syndicate, sends some encouraging accounts of that country. Writing under date of March 31st to friends, he says; "The Orca oil district is the richest in Alaska. The oil is simply oozing out of the ground, and we are often literally wading in it. I believe that flowing wells will result from boring to a depth of 100 to 200 feet. The oil is of a similar quality to that on the Alaska Development company's property." Hauser and his associates are staking several miles of oil claims, which will be developed as soon as the boring apparatus can be shipped north.

### COALINGA.

J. F. Forbes et al, who has taken up the E½ of section 20, 21-15 is building some roads for his assessment work. Mr. Hedding, who has taken up the W½ of the same section has put up a derrick for his assessment work.

E. A. Hardison was in town perforating well No. 1 for the Caledonian Oil company and three wells for the Penn-Coalinga and York-Coalinga companies. The Hardison Perforating company will have a permanent representative in this field by the first of next month.

The Kutner-Goldstein company, of Hanford, have a gang of men in the field putting up oil tanks. This firm has supplied nearly all the tankage in the field. The tank business of the firm is in charge of Will Wallace, than whom a more popular or skillful man in the business cannot be found.

The Coalinga Consolidated Water company have replaced its three-inch water line from the plant on section 12 to the St. Paul company's plant on section 23, with a two-inch pipe. The three-inch pipe will be used in extending the line into section 28. The company has also finished another water well this week.

The grading for the Southern Pacific railroad tanks at Ora station is practically completed and part of the horses and tools have been shipped out of town. The tank builders, however, will not finish for a couple of weeks. The tank builders for the Pacific Coast Oil company arrived last Monday. They will begin work on the tank in section 6 first and then build the second tank on section 21.

Twenty-eight Oil company is making good progress on their No. 7 well which was started about three weeks ago. It is also putting up another rig for well No. 8. Oil City Petroleum company are also drilling on their No. 7 well on section 28. Five wells are being drilled in this section at present and when they are completed will give the section twenty-nine producing wells which gives it by far first rank in the field.

The Mercantile Crude Oil company that has two good producing wells on section 6, 20-15, will put down two more wells on the south line of their property near the Esperanza, when they finish deepening their No. 1 well. The Commercial Oil company are also planning to put two additional wells down in the near future. The Esperanza company expect to put in two instead of one as was reported previously. Fresno-San Francisco company will add another after completing No. 3 well.

The drilling rig of No. 11 well of the California Oilfields Limited was totally

destroyed by fire early Tuesday morning, the 14th. The hole was within twenty feet of being complete. The volume of gas escaping from the hole caught fire from the forge and resulted in an explosion and the total destruction of the rig. Mr. Mose McGee, a driller, who was in the derrick received some painful burns about the face, neck and hands. A large tank filled with oil was within sixty feet of the burning rig and at the time it was feared that that too would catch fire, but it remained intact of the flames. This was the first serious loss to the company in all its operations in the field. The rig is now being replaced with a new one and work to complete the hole will begin immediately. Two other wells are being put down by this company, one rig is already up, work on the other to begin shortly.

Coalinga, Cal., April 19, 1903.

### FULLERTON.

The Santa Fe has finished up another well which is good for 500 barrels daily. The company has also recovered the tools lost in well 31, after several days' fishing.

### KERN

The Del Rey is down about 500 feet on well No. 6.

The Peerless Oil company, section 29, 28-28, has two rigs up for further development work.

Well No. 1 of the Fulton company is down about 500 feet. It is expected this well will be completed by May 1st.

The Associated Oil company is rigging up for well No. 10, Green-Whittier tract. Well No. 9 is now nearing completion.

The Columbian Oil company, section 29, Kern River district, has completed well No. 5, bringing in another splendid producer.

The Hart Crude Oil company is building a road to its camp and has the material on the ground for more tankage. The company has two wells, one pumping steadily.

Development work in the Sunset field and Midway continues with unabated activity. The assurance of continued grading on the Midland-Pacific railroad, at the San Luis Obispo end, and the commencement of actual operations on the tanks, refinery, pipe line, etc., of the California Consolidated Oil Fields, Limited, has made it certain that there will soon be an outlet for the oil production of the producing companies in these fields, and as a consequence the big producing companies are making arrangements and plans for the early disposal of their oil at satisfactory figures. This will enable companies like the California Fortune, the Monarch, Federal Crude and similar companies, which have a great quantity of oil on hand, to commence shipments before long, which will mean an early payment of dividends to stockholders, who have been very patient, knowing that it was simply a matter of a short time when their stock holdings would be yielding satisfactory returns.

In the Kern River field the Associated Oil company has nearly finished the work of excavating their great reservoir, and the material for roofing the reservoir is now on the ground. The reservoir will be completed in thirty days. The work of excavating the McKittrick reservoir is still going on, but considerable time will elapse before its completion, owing to the extra work of lining

the reservoir with brick and cement. The company has two rigs at work in the field completing new wells. The production of the company is now practically up to the sales, and the wells show an increase rather than a decrease of production. The Shamrock well in the McKittrick field is now producing regularly at the rate of 1,500 barrels a day, the oil flowing naturally without any necessity of pumping. This well is the best well in California to-day, as it has flowed steadily at this rate for over seventy days, and as the well clears itself from sand the output increases rather than diminishes. Manager Porter states that the demand for oil from his customers has increased at the rate of over 10 per cent, due to the increasing demand for fuel as the business of the different manufacturing concerns increases. The price of oil in San Francisco on short time contracts is now 70 cents a barrel f. o. b. Consumers as a rule have not over one week's supply on hand in their tanks.

### LOS ANGELES.

Another valuable property in the Los Angeles city field has changed ownership. Through a deal just consummated, Doran, Brouse & Price have added to their extensive holdings the wells and entire equipment of the Potomac Oil company. The property is situated in the northwestern end of the field, and consists of nine wells, a pumping plant and other machinery. The wells are only fair producers, but no attempt will be made for the present to increase the production. The pumping plant will be removed to the firm's property in the east end of the field. A firstclass deep well has been brought in by Doran, Brouse & Price on the old Bernard property near Yale street. Shortly after acquiring the Bernard lease, the local firm began the work of deepening, and the producer just brought in was one of the first returns. The well was sent to the lower sands, and started off with a production of fifty barrels. Operators are well satisfied with the showing, and will continue the search for the lower sands in other corners of their tract.—Los Angeles Times.

### LOS GATOS.

The conviction that much oil is hidden in the earth about Los Gatos has prompted the erection of another derrick. The new well is on the Walker place.

### MENDOCINO.

Drilling operations at Ukiah were abandoned nearly two years ago on account of the difficulties encountered

which could not be overcome by those handling the tools. Negotiations are now pending which will probably result in the early resumption of work.

### SAN BERNARDINO.

Another desert enterprise that is to be infused with new life is the attempt to find oil near Hiawatha. This well was drilled to a depth of 1,000 feet a few months ago, and now it is to be sent 500 feet deeper. A hydraulic rig is on the ground to carry on developments.

Another carload of drilling machinery was shipped this week from a Bakersfield supply house to a new prospect oil field. The assignment was billed to Kramer, and the rig is to be installed a few miles from that place. In spite of the many failures to strike it in that part of the desert country, apparently there are those who have hope of better luck. The well-boring outfit which was operated near Kramer until recently has been pulled and the rig moved to Jim Gray siding, eight miles east of Kramer. The well at the latter place was sent to a depth of 900 feet without encountering a showing of oil.

The Graham and Loftus Oil company, composed of men well known in Ventura county is to engage in an important pioneering enterprise. According to the Ventura Free Press an outfit in charge of expert drillers has been sent by this company from Fullerton billed for the Needles. It is a matter of considerable interest to any to know just where this drilling outfit will be installed. This has only been given out in general way, as those behind the new venture decline to discuss the matter further than to state that the rig will be placed near the Colorado river, between forty and fifty miles south of the Needles. Just what indications of petroleum are found in that part of the country is not known; it would be quite surprising if there were any. The drilling outfit to be used is of the most approved model, capable of thoroughly testing the district.

### SANTA BARBARA.

B. Pezzoni and A. Tognazzini, ranchers of San Luis Obispo county, have organized a company, composed of ranchers and dairymen, and will drill at once for oil in the neighborhood of the Casnalia Oil company's wells.

Quite a number of oil men have been visiting Lompoc within the past two weeks, and their investigations were by no means confined to the north side of the river. A well-defined anticline having been discovered and traced on the



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How Oil Wells are Drilled.  
The Cost of a Deep Well.  
Protection to Customers.  
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We Guarantee Investigation.

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Refinery.  
Logs, Maps, Photographs.  
General Management.  
What Business Men Say.  
Press Notes.  
Expert Report.



north side has caused many tracts to be sought after by those anxious to secure options, and some have been secured on fair terms.

At the Pinal company's operations south of town, says the Santa Maria Graphic, well No. 3 is down 500 feet and over and work has begun on No. 4. In the number of wells the Pinal is second only to the Western Union, and it is the intention of the company to keep on drilling until their number of wells will rank high with the greatest in the State. The Pinal field thus far has proven itself to be one of the richest in this section.

A. H. McKay states that the de la Guerra ranch, of 2,200 acres, lying between Careaga and Lompoc, recently purchased by him, has been turned over to a company composed of Scotch and English capitalists, together with Messrs. Barneson, Goodall and others of San Francisco. The Record says the new company is incorporated with a capital stock of \$160,000, under the name of the Los Angeles Oil company. Nearly all the stock is subscribed, and the \$160,000 represents the cost of the ranch and the first well. The de la Guerra ranch is surrounded on three sides by the Western Union property, and on the other by that of the Union Oil company. Mr. McKay, who is president of the new Central bank of Santa Barbara, is interested in the company and says drilling will begin right away on the territory nearest the Lompoc field.

There is a general inquiry everywhere about oil developments at Lompoc, says the Record. Attention is turned generally in this direction, and it seems queer, that with oil already reached and indications of an extensive area of oil producing territory, that other outside capital than a single company or combination of capital has not secured lands and commenced operations. There are a dozen points or places where oil is as likely to be reached as where it has been so successfully found at the first boring by the Union company. It is not good for a country to have so great an industry and territory under control of a single head, and the more valuable the territory the worse for the country, however beneficial for the company. It has been strongly intimated that an independent company was negotiating for a thousand acres of the Santa Rosa ranch along its north boundary in the vicinity of Drum canyon, and was also desirous of combining the Crawford and Drum contiguous properties, which, altogether, would cover a territory embracing two thousand acres of supposed oil territory. If this sale should be effected, which is believed probable, the first well to go down will be in the upper Drum canyon, where every expert of note has been of the opinion oil would be easily reached. If the oil industry is to be of any great value to this section, it can only come about by a diversified working as at Bakersfield, where often a very wealthy company has a very limited territory which is being vigorously as well as profitably worked. It is claimed that the Union company has all the territory it cares to compass, and is not only willing but desirous of seeing other companies formed and operating, that one general pipe line may be serviceable to contiguous territory. It is evident that quite a while will elapse before the supposed oil-bearing territory south of the Los Alamos range will be very thoroughly exploited, covering as it does so great an area.

#### SARGENTS.

Col. Beane says he always had faith in Sargents oil district. He looks for great developments there. The capitalists he represents, John Martin and E. J. D'Sampla of San Francisco, have leased 250 acres. The Gilroy Advocate says: A crew of men under the colonel's di-

rection are placing a first-class rig and all essential machinery below Sargents station. Ground will be broken at once. Col. Beane is arranging to start work in Santa Cruz and San Benito counties, where his principals have large holdings. These gentlemen are investing their own money. There are no stockholders to share profit or loss with them.

#### UTAH.

The New York-Utah Oil company expects to resume work on its well in Clark's valley about May 1st. It is probable that the company will put down a well in Emery county the coming summer.

The Mt. Pleasant Oil and Gas company has entered into a satisfactory arrangement by which two 3000-foot wells will be immediately sunk upon its land. The machinery has already been ordered and is to cost in the neighborhood of \$3,000. It will arrive by the first of May, and work will commence immediately thereafter.

The Advocate a few days since had a letter from a gentleman at Salt Lake city, who represents some big Texas capital at Beaumont, in which it was stated that he had promised at least five standard rigs to be put in commission in the Green River fields within the next six or seven months or sooner if possible. Their expert has lately been over the ground, has made a splendid report on this as a coming oil field, and it is confidently believed the starting of work by a Texas crowd will be only the forerunner of still more real developments this year.—Price Advocate.

#### WYOMING.

Mr. S. H. Hubbel, representing the Globe Oil company of San Francisco, arrived at Fossil last Wednesday. Mr. Hubbel states that his company has ordered machinery, which is now on the way to the oil fields, and they will commence extensive development work at once.

The Craig & Bartlett well at Spring Valley is now down 2,000 feet. They will sink the well to 3,000 feet or more as they expect to get the best results at from 2,500 to 3,500 feet. This has long been the theory of geologists, and the outcome of sinking the well to this depth is looked forward to with interest. The company got a good showing at 1,100 feet.

Articles of incorporation have been filed by the Illinois & Wyoming Oil Co., which is composed of prominent New York and Chicago capitalists. This is one of the companies that Mr. W. J. Cashin succeeded in interesting while East last winter. The company will be incorporated for \$500,000 and own a section of valuable land in the Uinta field. They will commence active work at once.

Stock has been issued in the Nebergall Telephone company, which was incorporated some months ago. The officers of the company are: L. E. Nebergall, president; E. J. Lewis, vice-president; Frank Beckwith, secretary and treasurer. The company is already operating extensive lines through the Uinta oil field, which lines will be extended to every rig in the near future. They have long distance connection with the Rocky Mountain Telephone company at Evanston.

Your correspondent visited the Michigan-Wyoming company's well on section 26 last Tuesday with Mr. A. A. Perkins, their genial superintendent. They were down some 400 feet and were making rapid progress toward the oil sands, which geologists say lie at about 1,000 feet in this locality. They were drilling on the extreme south end of a long, low ridge or "hog back". The formation in this locality is unbroken and seems more favorable to success than any part of the field I have visited. They are mining their own coal from a point near the rig.

Evanston, Wyo., April 17, 1903.

## NEW GAS PLANT.

**A Hanford Company Soon to Install a Complete Plant.**

The Hanford Gas and Power company will soon be furnishing gas in abundance for fuel and lighting purposes to the county seat of Kings county, one of the most prosperous and growing cities of the State.

Ten years ago Hanford was a small village composed principally of wooden shanties. To-day it is a modern little city of over 4,000 people, with fine brick business blocks, stores that would be a credit to a city of 20,000 people, macadamized and oiled streets, and with country surrounding it as fertile as any in the world, plenty of water for irrigation purposes, and an energetic, industrious population.

The city has an electric plant, but the growing demand for gas has occasioned the formation of a company composed of successful oil men, principally of Hanford, for the manufacture of gas from oil.

The streets have been laid with pipe as follows: 5,000 feet of six-inch, 10,300 feet of four-inch, 9,000 feet of three-inch, 25,000 feet of two-inch, 28,000 feet of one-inch.

The plant is being installed by the Western Gas and Construction company, and will be the finest of its kind on the coast. It will have a capacity of 100,000 cubic feet of gas every twenty-four hours.

The officers are: Colonel Tim Spellacy, president; Dan Finn, vice-president; E. E. Bush, secretary. These gentlemen with C. S. Young of Bakersfield have put up all the money, and own the stock of the company which is capitalized for \$100,000, shares at \$1. The plant will cost fully \$50,000.

## A PUMPING PLANT.

**How the Standard Has Fitted Up a Desert Pumping Station.**

Corcoran is a little station on Santa Fe located in a treeless, un-irrigated desert plain, in Kings county, near the Tulare county line, and opposite Tulare lake.

It was visited last Sunday by a Hanford representative of that place, and this is how he describes what he saw:

"A visit to Corcoran Junction makes one, who has not been there for a year or perhaps several months, open his eyes very wide, to be sure that he is not deceived by his eyesight, but he finds that he is not. Several years ago there was nothing in that vicinity but a house here and there, perhaps two miles apart, and the wild cattle ranging over the fields, but with the coming of the Santa Fe, there was quite a change manifested, and now that the Standard Oil company has situated a pumping plant at that place there is a wonderful change.

"There are two large brick

buildings, one used for the mammoth pumps and heaters, with which the oil is to be heated and pumped through the line for twenty-eight miles farther north. Of course there are several men needed to operate these things, and the company considers that men, who are married and settled, are more steady and reliable, and so they have built four dwelling-houses, all of which are of the very best kind, and much better than many dwellings in some of the towns in which a man can live with his family. As a security against fire, which would cause almost unimaginable destruction if it once got started in a place where there is so much oil, the company has provided a large motor, with which electricity for lighting all the buildings connected with the plant, is to be made, and when the plant is lighted up at night, the lights can be seen for miles and miles around the station, owing to the unbroken view.

"There is also a large tank, with a capacity of 20,000 barrels, in which surplus oil is to be stored, and it was expected that the oil, which is now being pumped northward by the station at Pond, would reach this tank Saturday evening, but owing to some accident the pumps at Pond had to be shut down and it is not known when the oil will reach the Corcoran station."

## Oil in Victoria.

Consul A. E. Smith, of Victoria, B. C., reports that a large area of coal and petroleum lands has been recently discovered in Southeast Kootenai, within twenty-five miles of a branch of the Canadian Pacific railway. Mr. Smith adds:—"Two hundred and twenty applications for claims have been made, and it is stated that 220 miles of territory have been staked off, the stakes being driven in the deep snow. The country is well wooded. The matter has been kept quiet by the applicants, with the object of preventing a stampede. Despite the number of applications filed with the provincial government, the extensive territory has been taken up by a few speculators."

## LOOK OUT

FOR THE

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OF THE

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ON THE OIL FIELDS OF

**WYOMING**

To be issued in May

## WANTED

Position as superintendent of a thoroughly reliable oil company, by a man 32 years old, married and strictly temperate. Have thirteen years' experience, nine in Pennsylvania and West Virginia and four in California fields. Can furnish A No. 1 references as to character and ability.

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## OIL IN ENGLAND.

### First Discovery Dates Back to 1843.

Dublin cannot claim the distinction of being the first place in the British Isles to "strike oil," says Petroleum, but it may be said at once that, apart from the Scotch industry, discoveries of petroleum at home have never come to anything approaching commercial importance. Dr. Redwood, in "Petroleum and Its Products," devotes space to petroleum discoveries in England. An old authority, he says, writes of petroleum in this way:

Formby, where, in the mossy grounds, they cast up turves (turf), which serves the inhabitants both for fire and candle. Under the turf there lies a blackish dead water, which has a kind of oily fat substance floating upon it. \* \* \* Within a mile and a half of Wiggln (Wigan) is a spring, which does not appear to be a spring, but rather rain water. At first sight there is nothing about it which seems extraordinary, but upon emptying it there presently breaks out a sulphureous vapor, which makes the water bubble up as if it boyl'd. When a candle is put to it, it presently takes fire, and burns like brandy. The flame, in a calm season, will continue sometimes a whole day; by the heat thereof they can boyl eggs, meat, etc., tho' the water

itself be cold. By thus bubbling the water does not increase, but is only kept in motion by the Halitus of the vapors breaking out. The same water taken out of the well will not burn, as neither the mud upon which the Halitus has beat (Phil. Trans., N. 26), and this shews that it is not so much the water that takes fire, as some bituminous or sulphureous fumes that break out there.

Indications of petroleum at Down Holland were thus described in 1843 in a paper read by the Manchester Geological society:

The whole of the moss is in cultivation, either under the plow or in grass, and has been so for at least forty or fifty years, and all, or the greater portion of it, lies at a lower level than the high-water mark of the sea at Formby. On approaching the place where the peat containing petroleum occurs, from Down Holland, the authors soon became aware of its presence by an empyreumatic smell, resembling that yielded by Persian naphtha, and the water in the ditches was also coated with a thin film of an oily iridescent fluid that floated upon its surface. In walking over some eat stubble fields and thrusting their heels through the black decomposed peat forming the soil, they felt a hard pitchy mass of three or four inches in thickness, which yielded no smell unless it is burned. On exposure to the

atmosphere for a time, the pitchy mass lost the greater part of its inflammability; and was finally converted into black mold. This substance also occurred under the roots of the grass in old sward fields, but it then yielded an odor similar to the petroleum that floated on the surface of the water and pervaded the moist peat.

### The Aftermath.

One by one the boom companies of the Texas oil fields are coming to grief, and the deluded shareholders can frame their stock certificates and preserve them as mementos of their own folly. A suit has been recently filed in the district court at Beaumont against the Citizens' Consolidated Oil company, praying for a receiver to take charge of the affairs of the company and for a dissolution of its corporate existence. The petition alleges the defendant company was organized in 1901, with a capital stock of \$1,000,000, divided into 10,000 shares of the par value of \$100 each; that of this number 7,774 shares were retained by the promoters in return for 472 acres of land situated at Spindle Top and owned by the said promoters. It is further alleged that subsequent to the organization of the defendant company one-half acre out of the Hogg-Swayne tract was purchased for \$17,500; that a well was drilled and oil obtained, but

that it is now unproductive; that the defendant company has no other assets than the said lands, and that it is for the good of creditors and all concerned that its corporate existence be brought to a close. And this is only one out of scores of similar cases. Oil companies formed upon a basis of wind, a few acres of wildcat lands and promises of monthly dividends, are mighty poor investments in Texas or anywhere else. —Oil City Derrick.

### Kentucky Pipe-Line.

It is now a question of a few weeks only until the long pipelines through the Kentucky and Tennessee oil fields are completed, and then the real position of these states in regard to oil production will be determined. The main line is now completed as far as the Licking river in Kentucky, a distance from Somerset, the commencement, of ninety-three miles. This does not include the line from Somerset to the Tennessee fields, which has been in operation for a number of years. This leaves ninety miles of the main line yet to be completed. The branches extending into the fields of Knox and Wayne counties have been completed for some time, and the Knox line has been in operation.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



**BURNS CRUDE OIL.****A Successful Irrigation Plant in Use Near Selma.**

A visit to C. C. Snyder's ranch near Selma last Thursday afternoon found him running his new pumping plant and dispensing the life-giving fluid over his lands with a lavish hand. He has a sixteen-horse power Economist crude oil engine and a number 6 centrifugal pump. The Irrigator says the power is apparently sufficient for a much heavier load than it is now carrying and can be adjusted to run very slowly if so desired. The engine is horizontal and is simplicity itself in its mechanism. It is started with a battery sparker but is switched to a small dynamo as soon as it gets under way to save the battery. In like manner gasoline is employed to start with but supplanted by distillate and that by crude petroleum as soon as heat enough is generated to convert the crude oil into gas. This is accomplished by means of a horizontal rotating drum with interior spiral ribs enclosed in an outer casing.

The crude oil enters the drum at one end and by rotation and the spiral ribs is carried slowly and uniformly through it. While the oil is passing through the drum, it is exposed to sufficient heat to generate gas, which is drawn off and utilized by the en-

gine in proportion to the amount generated, and the residue is discharged. The heat is supplied by the exhaust of the engine which passes between the drum and outer shell and keeps the drum at a certain temperature, just high enough to get all the gas out of the oil.

The pump throws a stream of water seventeen inches wide and nine inches deep over a clear drop. Some people claim they can irrigate ten acres a day with such a plant but Mr. Snyder says he will be well pleased if he can water four acres a day. It costs only 7 cents per hour for fuel to run his engine which would make the cost of irrigating an acre about 17 cents at the very outside.

There are several similar plants in the county besides that of Mr. Snyder and so far as we have heard, all are giving entire satisfaction.

A shoe factory making ten thousand pairs a day would be an elephant on your hands, if you had no market for your output. The New Franklin Oil and Refining company has sufficient contracts to insure a maintenance of present profits. Let us send you a prospectus.

c m hatcher & company  
journal building boston

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

**Communication.**

The mania for legislation has added another worthless edict to the mass of inoperative matter that burdens our statutes.

I refer to the law recently enacted "to compel" oil well owners to "land their casing in the impervious strata above and below the oil strata" and to effectually exclude all the water from above and below thereof.

Now, in the Eastern oil fields, where the stratification is level, continuous and uniform, and where the hole made is fairly even and round, it is sometimes (though rarely) possible to insert a wooden plug, the swelling of which will successfully exclude the water from below, but in California, where a drilled hole is a succession of cavities and bumps, as is evidenced by the large amount of material taken from the wells in process of drilling, I do not hesitate to say that shutting off water from below is entirely impracticable by any known method, and I doubt that it has ever been accomplished in a single instance.

Where casing shuts off water from above, it is owing to quantities of stones, gravel, sand, mud, etc., lodging alongside the casing in such a way that the pressure of the water on the mud and other next finer material causes it to jam down the coarser and harder particles which (because heavier) are under, causing them to adhere firmly to the walls of the well. Now, if a bridge of this kind could

be reverted without removing the pressure therefrom, it is obvious that it would also hold a water pressure from below in the same manner, but the laws of gravity forbid the detritus from forming in that way after being agitated in water.

Then again there is no "blown in the bottle formula" as to the details of conducting this work.

Who can be a better expert to decide if the work is properly done than the owners and drillers of the well, who themselves are generally kept guessing as to the conditions that prevail in their squirrel hole.

The idea that you can properly direct such work in your neighbor's well without his co-operation is preposterous. In some Eastern states there are laws compelling the plugging of abandoned wells, but they are of little or no value. Some specified material is thrown in, so as to comply with the law, but not generally in such a way as to be effective.

If the bright attorneys who draw up such laws could comprehend their portant they would prefer doing something easy instead.

Fortunately cases are quite rare where a neighbor can be seriously injured by wells that are in operation, but abandoned wells should have the tools swung at the vital points and a quantity of gritty material pounded into a puddle so that no force from above can move it, but it should be done by a conscientious person that is acquainted with the well and who will do it properly.

WM. PLOTTS.

Whittier, April 14, 1903.

# 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500  
Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

# Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

**Treasury Stock, - - \$350,000**

**475-476 Parrott Building, 855 Market Street, San Francisco, Cal.**

TELEPHONE, SOUTH 488

Proven oil lands in Napa and Coalinga for sale cheap.

**AGENTS WANTED In All Large Cities for the Sale of Our All Refined Asphaltum**



**New Oil Companies.**

The following articles of incorporation have been filed in the office of the Secretary of State:

The Chief Oil company. Principal place of business, Los Angeles. Capital stock \$1,000,000, with \$1,085 subscribed, and C. Schuurer, Frank Moir, H. J. Stocker, Thomas Strohm, J. T. French, R. Lewis of Los Angeles and E. J. Dubbs of Obispo, directors.

Boylston Oil company. Principal place of business, Los Angeles. Capital stock, \$50,000, with \$15,000 subscribed, and A. R. Spencer, W. H. John, E. B. Spencer, F. B. Rodgers, C. E. Holden of Los Angeles, directors.

Walnut Creek Oil company. Principal place of business, Tucson, Ariz. Capital stock, \$1,000,000. John A. Campbell, Roscoe Dale, George E. Smullin, John Mets and John T. Hughes of Tucson, directors.

Octave Oil company. Principal place of business, Los Angeles. Capital stock, \$50,000; \$5 subscribed. Dan Murphy, Thomas A. O'Donnell, G. Holterhoff, Jr., W. I. Hollingsworth and R. H. Lacy of Los Angeles, directors.

Wabash Oil company. Principal place of business, Fresno. Capital stock, \$300, subscribed. F. E. Cook, W. H. Ingels, R. J. Dickson, P. E. Daniels and F. H. Short of Fresno, directors.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, April 22d:

**CARIBOU.**

100 at 85..... \$ 85 00  
500 at 82½..... 412 50

**FOUR.**

100 at 68..... 68 00

**HOME OIL.**

400 at 2 60..... 1,040 00  
100 at 2 50 (S 90)..... 250 00  
800 at 2 55..... 2,040 00  
100 at 2 50 (S 30)..... 250 00

**INDEPENDENCE.**

2,000 at 12..... 240 00  
700 at 13..... 91 00

**KERN.**

50 at 5 00..... 250 00

**LION.**

450 at 06..... 27 00  
800 at 07..... 56 00

**MONARCH.**

1,500 at 25..... 375 00

**OCCIDENTAL OIL.**

500 at 17..... 85 00  
500 at 18..... 90 00  
500 at 18 (B 90)..... 90 00

**OIL CITY PETROLEUM.**

1,050 at 30..... 315 00  
200 at 31..... 62 00

**PEERLESS.**

100 at 15 00..... 1,500 00  
360 at 15 50..... 5,580 00

**PETROLEUM CENTER.**

700 at 06..... 42 00

**PITTSBURG OIL.**

1,350 at 45..... 607 50

**REED CRUDE.**

3 908 at 32..... 1,250 56

**SOVEREIGN.**

200 at 41..... 82 00  
1,200 at 42..... 504 00  
200 at 43..... 86 00

**STERLING.**

510 at 3 20..... 1,632 00  
110 at 3 15..... 346 00  
225 at 3 10..... 697 50  
200 at 3 10 (S 90)..... 620 00  
300 at 3 05..... 915 00  
100 at 3 20 (S 30)..... 320 00  
100 at 3 15 (S 30)..... 315 00  
50 at 3 25..... 162 50  
100 at 3 25 (B 30)..... 325 00

**SUPERIOR.**

1,000 at 05..... 50 00  
2,000 at 06..... 120 00

**TWENTY-EIGHT.**

300 at 3 55..... 1,065 00  
450 at 3 50..... 1,575 00  
250 at 3 40..... 850 00

24,063 Shares Amount \$24,471.56

**ALAMEDA SUGAR.**

500 at 28 00..... 14,000 00

**HAWAIIAN COMMERCIAL.**

10 at 45 25..... 452 50

**MOKAWELI SUGAR.**

50 at 27 00..... 1,350 00

35 at 27 50..... 962 50

**NORTHERN CAL. POWER CO.**

150 at 9 50..... 1,425 00

**SUPERIOR FLOUR.**

100 at 30 00..... 3,000 00

845 Shares Amount \$21,190 00

**U. S. 3'S.**

2,000 at \$ 1 08..... \$2,160 00

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.35	.....
Apollo.....	.41	.....
Asso. Oil Co. Stock	.....	.....
Trust Certificates.....	.30	.....
Aztec.....	.80	.....
Bear Flag.....	.10	.....
California Standard.....	.10	.....
Caribou.....	.80	.87½
Central Point Con.....	.80	.....
Chicago Crude.....	.25	.....
Clairmont.....	.30	.....
Fauna.....	.12	.....
Four.....	.67	.70
Hanford.....	118.00	122.00
Home.....	2.50	2.55
Imperial.....	18.37½	.....
Independence.....	.12	.13
Junction.....	.07	.08
Kern.....	4.85	5.25
Kern River.....	13.75	.....
Lion.....	.06	.....
Monarch of Arizona.....	.23	.....
Monte Cristo.....	1.32½	1.35
Occidental of West Va.....	.16	.17
Oil City Petroleum.....	.30	.31
Petroleum Center.....	.05	.....
Peerless.....	15.00	15.50
Pittsburg.....	.40	.48
Reed Crude.....	.31	.33
S. F. & McKittrick.....	2.50	3.00
San Joaquin O. & D.....	6.12½	6.75
Senator.....	.67	.68
Sovereign.....	.41	.42
Sterling.....	3.15	.....
Superior.....	.05	.06
Thirty-three.....	8.87½	.....
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**Recent Patents.**

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Drive-head for pipe, P. H. Mack, Bradford, Pa., assignor to Oil Well Supply company, Pittsburg; 722,866.

Relief valve attachment for oil well pumps, E. R. Graham, Bakersfield, Cal.; 723,438.

Well drilling apparatus, G. H. Spaulding, Chicago; 723,555.

Hydro-carbon filter, G. W. Stewart, Ticonderoga, N. Y.; 723,556.

Drilling jar, F. H. Norris, Tionia, Pa.; 723,782.

Oil pump piston or plunger, O. P. Berry, Petrolia, Pa.; 723,811.

Drill, W. H. Clark and F. J. Currier, San Francisco; 724,160.

Oil tank attachment, Carl Moller and Mathias Salisbury, Pensacola, Fla.; 724,314.

Oil burners: A. H. Calkins, Santa Monica, Cal.; 720,889; John McDermott, West Berkeley, Cal.; 722,530; Harry Luckenbach, Seattle, Wash.; 723,206; R. F. Schroeder, Sacramento, Cal.; 724,053; C. K. Berge, Mobile, Ala.; 724,248; A. H. Van Pelt and W. A. Laufman, Oakland, Cal.; 724,761.

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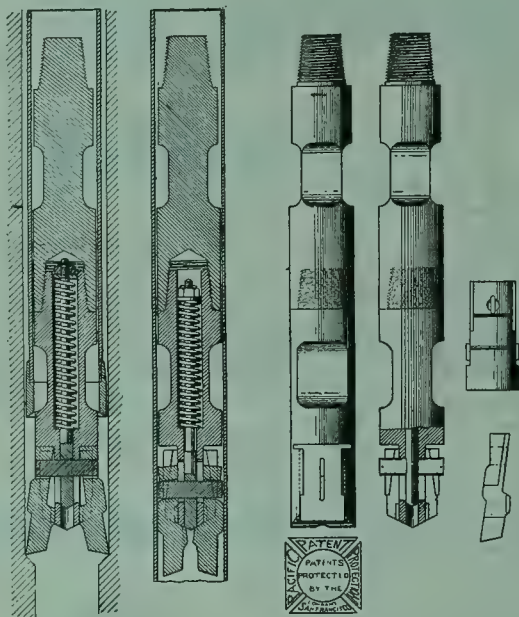
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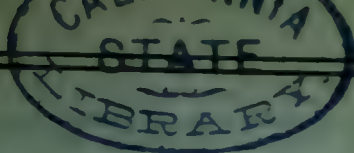
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Vol. 4. No. 26.

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# PACIFIC OIL REPORTER

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SAN FRANCISCO, CAL., SATURDAY, MAY 2, 1903.

PRICE, TEN CENTS.

## THE NEW TANKER WHITTIER.

**She is Now on Her Maiden Voyage to the Hawaiian Islands.**

**This Magnificent Vessel Has Just Been Built By the Union Iron Works, and Has a Capacity of Eleven Thousand Barrels.**

A few weeks ago the new tank steamer Whittier was launched from the Union Iron Works.

On Tuesday last she made her first trip—a sort of trial trip, as it were, to Ventura after a load of oil. All her machinery worked to perfection, and after an unusually speedy trip both coming and returning from the southern port it was decided to send her on her next voyage to the Hawaiian Islands.

She started for the islands on Thursday with the barkentine Fullerton in tow. As the Whittier carries 11,000 barrels of oil, and the Fullerton 15,000 both together will bring to the islands for their owners, the Union Oil company, a total of 26,000 barrels.

The Fullerton arrived in port last Saturday after a quick round trip of forty-five days to Honolulu and return, including time occupied in loading and unloading. As she came in sooner than was expected it was determined to load her again as quickly as possible and send her out immediately in tow of the Whittier, who was obliged to lie over a

couple of days to allow the Fullerton to load up.

The Whittier is a magnificent tank steamer of 3,050 tons. She has a length of 250 feet and a beam of 31 feet 6 inches. She has ten tanks which with her fuel contain 11,000 barrels. She has

engines of 1,000 horse-power, and has an average speed of 11 1-5 knots. She has a shallow draft of only 16 feet, enabling her to reach coast ports where a vessel of deeper draft could not enter.

The Union Oil company have tankage at the islands now for 280,000 barrels, and the consumption of oil is so great and is increasing so rapidly that the company has to provide for the average transportation of 2,000 barrels a day. In order to meet this the Fullerton and the Santa Paula

week. This is an immense steamer with a carrying capacity of 30,000 barrels, and will make sixteen round trips to the islands a year. With this fleet at their disposal the Union Oil company will be able to meet any demand the islands may make upon them for fuel oil, and will also be able to supply oil to any coast ports where oil may be required.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



New Oil Tank Steamer "Whittier," just built by the Union Iron Works for the Union Oil Company.

have been kept on the go to the utmost, and the Whittier has been needed very badly.

In addition to the Whittier, the barkentine Fullerton, and the barge Santa Paula, the Union Oil company will have the great steamer Argyle ready for sea next

### Is Well Satisfied.

Mr. C. M. Hatcher, of C. M. Hatcher and company, of Boston, has been in San Francisco this week on business connected with the New Franklin Oil and Refining company, the Norwegian Mining company, and the Yankee Girl Oil company. Mr. Hatcher reports business in his line good in the New England states, and came out to California to personally investigate the affairs of the above-named and other companies, so that he might satisfy himself that the companies he was handling were all that he had claimed for them, and might place himself in a position where he could be of still more benefit to the Eastern investing public. Mr. Hatcher states that with reference to the stock of the Yankee Girl Oil company a deal is underway by which the holders of that company will be greatly benefitted.

Mr. Hatcher started to-day (Saturday) on his return trip to Boston. He is especially pleased with the arrangement just consummated among the refiners which assures a larger output of asphalt at greatly increased prices, and an energetic development of the asphalt business in the Eastern states. Asphalt will now be in increased demand not only for paving but for roofing purposes. The New Franklin company is now working continuously on the manufacture of asphalt roofing, and has its entire output contracted for in advance.



Union Oil Company's Barkentine "Fullerton."



## BIG DEAL IN ASPHALTUM.

**All the Refiners of Asphalt in California Have  
Joined Issues and United Interests.**

**The California Asphaltum Sales Agency Is Now an  
Accomplished Fact and the Manager Is John  
Baker, Jr., of the Union Oil Co.**

An organization has been effected which includes all the manufacturers of asphalt in California.

The organization is called "The California Asphaltum Sales Agency." At the head of this agency is Mr. John Baker, Jr., the sales manager of the Union Oil company, one of the largest producers of oil, refining and fuel, in the United States, and by far the largest owner of oil land, much of which is already producing, and practically all of which is proven oil land, in the world.

"The California Asphaltum Sales Agency" is the result of long and careful study and deliberation among the oil men and refiners of asphaltum. For some years the refining of asphaltum from crude petroleum has been more or less an important industry, but during 1902 this industry made an important stride, the number and capacity of the different refineries increasing to such an extent that the present capacity of the refineries is not much less than 100,000 tons of refined asphalt yearly, with the ability to increase this capacity any time three and four fold.

With scarcely an exception the different refineries have heretofore worked entirely separate from each other. There was no fixed price for their product, each one selling as best he could and where he could. There was no fixed grade of asphalt manufactured, some refineries turning out one quality, others better or worse as the case might be. Frequently it was worse. The product was put up in different packages as to appearance and size. No one company had sufficient capital to warrant it in the attempt to establish agencies in the various Eastern cities where asphalt was being used as pavement, and absolutely

no supply stations were established there.

The consequence of all this was that much of the California asphalt manufactured was very inferior in quality, not being fit for the use for which it was sold, many sales were made at prices that left no profit, much of the good asphalt was sold to Eastern paving contractors who used it as Trinidad

business the California asphalt men obtained was the leavings of the Eastern trade.

In organizing themselves into a sales agency the California asphalt men have taken a great stride forward, and the immediate results will be manifold.

In the first place there will be no more cutting of prices. There never was any reason why prices should be cut as they have been. While the Trinidad asphalt is a natural product, it costs money to mine it, to ship it, to refine it. It sells to-day in New York at \$35 a ton. It is not one whit superior to the California refined asphalt, and there is no reason why our asphalt should not command as high a price. In many respects our asphalt is superior to Trinidad. In no respect is it inferior. That is absolutely the fact in every case when our asphalt has been properly manufactured. When it

equal of Trinidad, and in no case need it be offered at lower price.

Asphalt as made here is the 12 or 15 per cent residuum of our crude oil. It is what is left over from our crude oil when it has been refined and the kerosene, naphthas, benzines, lubricants, etc., have been taken out of it. It is free from all impurities such as are found in the Trinidad asphalt; it has no sand, no dirt, no organic matter, no refuse of any kind. It does not need to be re-refined. The California asphalt, made from our crude oil, is a product distinct of itself. The residuum of Eastern crude oil is paraffine, which is of no use for paving purposes, while the residuum from California crude oil is asphalt, the best paving material on earth. The transportation charges from here to the Missouri are no more than from the island of Trinidad. The California asphalt men can meet the Trinidad men on equal terms when it comes to the question of cost, and there is no reason why we cannot compete with them without the necessity of cutting prices down to such a figure that all the profit is taken out.

This is what the new agency will aim to do. It proposes to stop the cutting of California asphalt among the refiners themselves, both on this Coast and in the East, and it also proposes to sell our asphalt in the East without the necessity of offering it at prices below the Trinidad.

In the next place the agency will offer for sale only such asphalt as should be offered for sale. All its product will be carefully graded, and buyers can rely that they will obtain the grade they order. Furthermore all the asphalt will be put up in uniform packages, and will present the same attractive and business-like appearance. The barrels and casks that some of our asphalt has been shipped in have been enough to condemn it before use.

The agency will also enter upon a campaign of education. Many have used our asphalt and condemned it after a trial simply because they did not know how to use it. If properly used on the street it makes the best pavement in the world. But it must be rightly and carefully used. The asphalt must be heated just right,



**Wonderful Lake of Asphalt at Trinidad.**

At present 85 per cent of the asphalt used in the United States comes from the famous Pitch Lake of Trinidad, B. W. I., just off the coast of Venezuela. This "lake" is probably the center of an extinct mud volcano. It covers about 114 acres, is nearly circular, and is little less than half a mile in diameter. The "lake" is fed from an underground source, and though being constantly mined the supply never diminishes, but is renewed in a few days. The asphalt taken from the "lake" contains 28 per cent water and 32 of mineral and organic matter. It is shipped to America and refined. For years it has practically had no rival, but from now on will find the California asphalt, made of refined oil, a powerful and successful rival, not only for paving, but for all other purposes where a superior quality of asphalt is required.

asphalt, there was no systematic effort made to introduce the California asphalt as the competitor of the Trinidad asphalt, there was no capital employed in pushing our asphalt in the East, the Trinidad men had things practically their own way, and what little

has proved on use to be inferior to the Trinidad the reason in every case has been that the California asphalt used had not been properly made or else had not been properly handled. When good California asphalt is furnished to men who know how to handle it, it is the

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It must be mixed with the right kind of sand and other ingredients, it must be mixed in the proper proportions, the mixture must be laid on at the proper temperature and on the proper foundation. In other words, those who use it must know how to use it in order to have it give satisfaction. Some intelligence must be exercised, and the making of a superior quality of pavement not left to a lot of ignorant men who are the very opposite of skilled and intelligent laborers.

Another thing the agency will do will be to show to how many uses our asphalt is adapted. For example: It is just becoming to be understood how useful asphalt is when used to cell building foundations. Cement and stone are more or less porous, and if a building is constructed in a wet location water is more or less apt to seep through and make the building wet and damp. When the foundations are lined or covered with a coating of asphalt easily applied with a brush all this seeping is done away with and the building is "dry as a bone." The new postoffice in San Francisco was one of the first buildings to be thus treated, and the experiment has been found to be thoroughly successful. Over eighty tons of asphalt have been thus applied to it.

Another use to which asphalt can be put is as a preservative of wood. No pole or post placed in the ground will suffer from dry or damp rot after being dipped in liquid asphalt. This fact has been tested most thoroughly and satisfactorily by the telegraph and telephone companies of this city, and now no pole is put in place without having been dipped in liquid asphalt.

Another use is the lining of reservoirs with asphalt. In California and elsewhere reservoirs are subject to leakages from jars and other causes, which bring about cracks and consequent leakages. When asphalt is applied to reservoirs there can be no leaks. Asphalt is the only remedy for this that has been found to be completely successful.

These are mentioned simply to show how much is needed the inauguration of a thorough and systematic campaign of education in order to increase the consumption of asphalt in different trades and along different lines.

This campaign of education is just what the new "California Asphaltum Sales Agency" proposes to undertake, and it proposes to push the sale of asphalt in all directions, both on the Coast and Europe and in the East, and it will introduce it along just as many lines as possible, by showing people what it is good for, showing them how its use will help them in their different lines of pursuit; and it pro-

poses to show the Trinidad men that California asphalt is on the map when it comes down to the paving proposition. It does not propose to cut the price of asphalt in the East. That would be foolish and entirely unnecessary. Our asphalt is better than the Trinidad, and why should we offer it at a less price, even if it does cost less?

The price has been agreed upon, and it is as follows, f. o. b. in San Francisco:

"L" (flux) grade, per ton.....	\$13
"D" grade, per ton.....	13
"B" grade, per ton.....	15
"C" grade, per ton.....	14

The cost of transportation per ton of 2,000 pounds, from San Francisco to Missouri river points, is \$11, which will make the price of our asphalt to the Eastern cities about \$26 per ton. If the Trinidad men want to beat that figure we shall be obliged to meet it, and can if necessary; but this is not anticipated.

The main business office will be in San Francisco, room 31, 7th floor of the Mills building. The manager is Mr. John Baker, Jr., who as sales manager of the Union Oil company has made an enviable record as a successful business man. Branch agencies will be established in all of the important Eastern cities immediately, and it is proposed to push the sale of California asphalt with all the vim and energy possible.

Eastern asphalt men who read this article, and there will be very many, can rest assured that if they order California asphalt they will get just the grade they want and order, and will get it when they want it without any delay, and that they can get just as much as they want.

Not only will the agency establish branch agencies in the East, but it will immediately establish Eastern supply and storage stations, where a sufficient supply of asphalt of different grades will be kept on hand for immediate delivery. These supply stations will be increased both as regards numbers and the amount of their storage capacity, so that in a short time the East will have a plentiful supply of California asphalt to use when they need it.

Last but by no means least, the agency will push the use of its refined product wherever and as much as it can in California, especially for paving purposes, and it does not propose to allow any more streets to be paved with asphalted mud, otherwise known as bituminous rock, than can be helped. The rock men realize they are up against it good and hard, and that it is only a matter of a short time before the streets of San Francisco, Oakland and other cities will use no more bituminous rock, but all contracts for street pavements will specify "asphalt" as the material to be used. The bituminous rock men

realize what is coming as well as anyone, and many of them are already providing themselves with the requisite machinery for the purpose of handling asphalt. Soon there will be no more mud pavements, and the quarries at Santa Cruz and elsewhere will be unused and deserted. The sooner this happens the better will it be for all our cities.

### Our Oil Wins a Point.

The experiments made by the naval board at Washington in the steam-producing qualities of fuel oil have resulted favorably for the California production. These experiments involved tests of the oils obtained from the Pennsylvania and Texas fields, as well as the crude product of the oil measures of this State. Weight for weight, the three oils are reported to be of equal value as fuel; but a gallon of California oil has a greater heating power than the same measure of either Texas or Pennsylvania oil. As its specific gravity is also greater, it weighs more to the gallon. These facts make it superior to the products of the Eastern and Southern oil fields as fuel for ships, as its greater specific gravity takes less space for the storage of any given heat-producing volume required for a vessel's use. Economy of space in any kind of sea-going

steamship is an important factor. In a naval vessel it is a matter of paramount importance, for all war vessels are now so crowded with machinery that the problem of fuel storage is a difficult one to solve satisfactorily.

Assuming, for the sake of illustration, that 1,000 gallons of California petroleum equals in weight owing to its greater specific gravity, 1,100 gallons of Texas or Pennsylvania oil, a war vessel will effect a saving of 10 per cent in the tankage required for its storage. Or put it in another way, any vessel outfitted as a fuel-oil burner will be able to carry 10 per cent more fuel in her tanks when served with the California product than she can carry of the output of either of the other oil fields. The superiority of California fuel oil over all others for steam producing at sea is, therefore, obvious. Its excess of specific gravity means a corresponding lengthening of the steaming power of the ship using it.—San Francisco Chronicle.

Bay City, Mich., capitalists have leased eighty acres of land of J. H. Merrill, south of the village of Yale, Mich., and as soon as possible will sink a test well for oil. It is thought that the land in that vicinity overlays a rich vein of oil.

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## OIL IN THE NAVY.

### Recent Experiments With Crude Petroleum as Fuel a Pronounced Success.

#### The Liquid Fuel Presents Many Advantages Over Coal For Use in a Locomotive or Marine Boiler as Demonstrated by Naval Tests.

The naval board investigating the subject of the use of petroleum for fuel has received an interesting memorandum on the subject contributed by W. D. Hoffman, associate member of the American Society of Naval Engineers, who has probably supervised more practical tests of liquid fuel during the past two years than any other expert, not even excepting the members of the board. In summing up the results of his observation, Mr. Hoffman concludes that it is now established concerning the use of oil fuel on ship board and on locomotives, that "wherever the conditions of supply are such that it may be obtained in quantities sufficient to meet the demand, and provided the prices are such that, taking the advantages to be obtained from oil fuel into consideration, it will be preferable to the other fuels on the market." It is not to be assumed, he says, that oil will displace coal, but for a locomotive or marine boiler it offers many important advantages which are not found in any other service, and which may be briefly summarized as follows: First, economy of space for carrying fuel; second, ease in loading; third, reduction of labor in firing; fourth, saving of time in meeting a varying load on a boiler; fifth, absence of ashes and smoke; sixth, cleanliness of fire-room; and seventh, ability to force boiler to extreme duty in case of emergency. Continuing, Mr. Hoffman says in part:—

It is the opinion of the writer that, with the constantly increasing demands for power and speed in both marine and railroad service, oil fuel will be resorted to on certain steamers and on certain trains where the service justifies its use, and, if limited as above, the supply will be sufficient to meet the demand. The greatest obstacle to its use in the past has been the threatened exhausting of the supply by two extensive application, and many plants have been equipped only to find in a few months that the too urgent demand had increased the price beyond that of its equivalent in coal. The torpedo-boat service and the fast train, either freight or passenger, offer two fields which should always find sufficient supply at reasonable price, and in the latter case there are

many railroads which make special conditions for a few trains, in both freight and passenger service, whose fulfillment would certainly be greatly aided by the use of oil fuel.

Much has been done in an experimental way with oil as fuel for marine service during the past twenty-five years, but this work has been of but little use in practical service (outside of the Russian oil district). The reason is that in many cases oil was used as an auxiliary fuel with coal, while in the others the burner was considered to be the principal feature in obtaining the results desired. In many cases the experimenters seem to have forgotten that when the oil is atomized perfectly the work of the burner is at an end, and the ignited oil gases must be treated the same as those from coal in a perfect state of combustion. The attempts to generate an oil gas in the burner, or to superheat the atomizing agents will not increase the efficiency of the fuel, and in the former case will reduce evaporative duty.

The recent series of tests conducted by the Naval Fuel Oil Board under a Hohenstein boiler added a very valuable chapter to the work of establishing the use of oil as a fuel. The care taken in collecting and tabulating the records of these tests, and, better than all, the effort to conduct the tests on the exact lines of actual service, should commend it to every one interested in oil fuel.

The analyses of oil used in the Hohenstein boiler tests seems to indicate that the oil used is what is known as "Texas Crude," and while there is quite a large supply of this oil at present in its crude state, it will doubtless be refined to a greater or less degree, and the heavier portions will form the supply for fuel purposes. This has followed in the history of every oil field, and while the Texas oil, by reason of its low gravity and small percentage of lighter oils, offers the least attractive proposition the refiner has yet faced, it will be found that a paying percentage may be successfully refined. The presence of sulphur in this oil is not a disadvantage when used for boiler fuel, as actual experience has shown, and I do not think

that at the temperatures of the marine or locomotive fire-box the amount of sulphur in Texas oil will injure the sheets or flues, or otherwise prove deleterious.

I have generally found the heavier grades of fuel to be the most efficient for boiler firing, and if the oil is clean, and warmed sufficiently to bring it to the burner in a thoroughly limpid condition, the lower gravity oil will give the more economical results, as the increase in weight per gallon more than makes up for the loss in heat units per pound. It has been claimed that the heavier oils are more liable to involve loss due to imperfect combustion and produce smoke, but here must be considered the main point in handling oil fuel, which is the construction of the furnace.

It is true that, after being broken by the atomizing agent, the heavier oil is slower in reaching a perfect stage of combustion than are the lighter grades, with the proper admission of air, and with fire-brick lining of furnace arranged so as to maintain the high temperature as far as possible, there is no difficulty in maintaining a smokeless fire. The troubles from this source, I have often found, resulted from a cutting down of fire-box area and a restriction of the flow of the partially consumed gases by defective arrangement of baffle walls and water-cooled surfaces.

The fuel oil burner has furnished almost as much work for the patent office as the car coupler, and at the present time very few, if any, of these patents are designed in accordance with the fundamental principles of an oil burner. The simplest piece of mechanism using the least amount of atomizing agent is the best. The various schemes for superheating the atomizing agent, or converting the oil into a gas before leaving burner, do not add to

the efficiency of the fuel, but, on the contrary, reduce the evaporating duty. I have never seen a fuel oil gas that would equal direct-fired oil for steam generating. In boiler firing steam is a most satisfactory atomizing agent, where the loss of steam through the burner is permissible. This loss, in a good atomizer of the round-nozzle type, is from 2 per cent to 5 per cent of the nominal horse-power rating of the boiler. In the slot type of burners the loss is somewhat greater, but I have no detailed figures on this.

For marine or stationary boilers the burners may be set where they are easily accessible, and either one or two burners to a furnace, where furnaces are of cylindrical type, will suffice. I do not think increasing the number of burners and decreasing their individual capacity is a good plan, for it means the use of more steam or air for atomizing, and it is difficult to get an even distribution over several burners. By some it is claimed that a closer regulation is obtained, but it must be remembered that a burner which can atomize 200 gallons of oil per hour can be cut down to from

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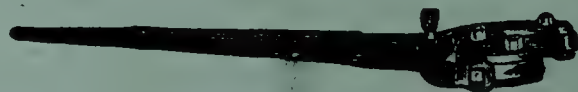
These maps are just out and show all the holdings of these fields, wells drilled, wells drilling, tanks, pipe lines, names of property holders, etc. They are the only correct maps of these fields published. For sale in San Francisco only by the

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eight to ten gallons for light firing.

With the water-tube type of boilers having several furnace doors, from one to two burners to each door is the best arrangement. On a locomotive, where the burner is set under the fire box ring, it is out of sight of the fireman, and therefore must be reduced to the simplest form and be free from all liability to clog. The regulation is accomplished by valves in the steam and oil supply pipe, which have stems extended up to reach of fireman.

Much time and money have been wasted in constructing burners with a view to decomposing the steam and gaining the heat from the burning hydrogen gas. It only need be said that the heat expended in this decomposition is hardly realized in the burning of the hydrogen, so that there is no gain from this source. It is doubted very much if any decomposition takes place in a boiler furnace, but it is thought that the steam distributes the gases better than any other atomizing agent. The steam certainly takes a portion of the heat from the furnace, and in comparing results from atomizing by steam with those obtained from a low pressure (1 to 5 pounds) air atomizer I have found the air to be from 10 to 15 per cent more economical in fuel. When it came to a question of forcing, the boiler could be run to 25 per cent greater capacity with steam than with air.

There are several good burners in the market, and many more which are simply mechanical monstrosities. Some burner enthusiasts are often heard to claim that they could save from 25 to 50 per cent of the oil used by any other burner. To show the unreasonableness of such claims it is enough to direct attention to the fact that with a properly set stationary boiler 15 to 15½ pounds of water may be evaporated from and at 212° per pound of oil, containing, say, 19,000 B. T. U. per pound. With the losses due to stack temperature and radiation, 80 per cent of the theoretical evaporative duty of the fuel is about as good as we can get. Taking the theoretical evaporation of our oil at 19.6 pounds water per one pound oil, we have 15.6 pounds water evaporated, which is very close to the result stated, the loss being due entirely to stack temperature and to furnace setting. I have seen very few burners which would not atomize well enough to give 13 pounds evaporation, and with the majority 14 to 15 pounds is the rule. Now, if the inventor who is going to save 50 per cent can evaporate even 13 pounds of water with half a pound of oil, he has certainly equalled the solution of the problem of perpetual motion.

The Naval Oil Fuel Board has

begun the preparation of a final report giving the results of many elaborate tests which have been supervised since the Board's preliminary report was published last October. Owing to the voluminous character of the data now before the Board its final report will not be completed before July or August.

#### Some of Both.

"Petroleum, Its Origin, Occurrence and Utilization," was the subject of a recent lecture before the Philadelphia College of Pharmacy, by Professor P. Stadler.

"As to the origin of petroleum," said the professor, "there have been several theories. For a long time it was thought it was produced by the action of steam and carbonic acid on metallic carbides, as acetylene is produced from calcium carbide.

"Later on experiments by Professor Snyder showed that an oil having all the properties of petroleum and having paraffine as one of its parts could be produced from animal oils, like fish oils. He contended that petroleum was a product from animal organic matter.

"I made some experiments and found that such an oil could be produced from vegetable oil treated under pressure, and I have made such a product from ordinary linseed oil. I think that petroleum is made from both animal and vegetable organic substances.

"It is found in all parts of the world, the most prolific fields being in Southern Russia. In this country the oil fields of Pennsylvania, New York and Northern Virginia have yielded the most profitable oils. The oils of this region have what is called a paraffine base.

"The oils of Ohio come from a limestone formation and are strongly impregnated with sulphur, as are those of Canada, which render them less useful for illuminating purposes, though they make good lubricating oils.

"The oil of Texas and California leave a residuum of asphalt. They make good heavy lubricating oils."

#### WILL OIL THE ROADS.

**Santa Cruz County Will Soon Sprinkle with Crude Oil.**

The supervisors of Santa Cruz county recently appointed a committee to examine the roads in the southern portion of the State which are treated with oil, and to report the result.

The report is as follows: To the Honorable Board of Supervisors of Santa Cruz county—Gentlemen:

We, your committee, appointed at a regular meeting of this board held April 7, 1903, to examine the oiled roads, the machinery for, and methods of applying oil on public highways in use in the southern part of the State, respectfully report as follows:

We left Santa Cruz April 19th, went direct to San Bernardino county, stopping first at Ontario where we called on Ex-Supervisor George R. Hollbrook, whom we knew had considerable experience in road oiling.

Mr. Hollbrook kindly gave us all the information he could in the use of oil on public highways and as to the machinery and methods in use in his district. He also took us over roads which he had oiled to show and explain to us the results obtained by different methods of applying the oil, etc.

He next visited Redlands, where we met Hon. J. B. Glover, chairman of the board of supervisors of San Bernardino county, and also patentee of a machine for applying cold oil on highways, etc.

We found Mr. Glover a very practical man, quite popular with his constituents and considered by them a very competent official. Mr. Glover drove us over several miles of road which he had oiled with his machine during last season, also, other roads which he oiled two and three years ago, and

to which no oil had been applied since, also showed us the simple arrangement by which he transferred the oil from cars to his wagons. He then showed us his machine for distributing and applying cold oil on roads and carefully explained its mechanism, workings, etc.

Road oiling has not commenced yet, and we therefore had no opportunity of seeing Mr. Glover's machine in use but the substantial manner in which it is built, its simplicity in construction etc., satisfies us that it will do all its inventor claims for it.

At Chino, we called on Ex-Supervisor Theo F. White, who has also invented a machine for distributing and applying cold oil on highways and other appliances for building oiled roads and keeping them in repair.

All of Mr. White's inventions show that he is not only a man of practical ideas, but a genius as well; and, the oiled roads in his district show that his appliances are well adapted to the purpose for which they are intended.

In conclusion we will say, we found the oiled roads in San Bernardino county entirely dustless, sufficiently solid to stand heavy traffic and resist washouts from heavy storms. We carefully examined the machinery in use there for applying oil to public highways, consider it superior to anything we have seen elsewhere; and, earnestly recommend the purchase and use of the same in Santa Cruz county.

We also believe cold oil is preferable to hot oil for road purposes, and with the machinery described and recommended in this report, as easily distributed and applied.

Very respectfully submitted,  
JAS. A. LINSKOTT.  
JOHN S. COLLINS.



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## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco Cal., as second-class matter

The PACIFIC OIL REPORTER will be found on sale at the following places:  
A. R. Derge & Co., Salt Lake, Utah  
The Temple News Stand, Chicago Ill.  
The Equitable News Stand, Denver.  
11 Columbia Street, Boston, Mass.  
20 Broad Street, New York City.

SATURDAY.....MAY 2, 1903

The PACIFIC OIL REPORTER has now well under way Wyoming an elaborate special Special edition on the oil Edition. fields of Wyoming.

This district bids fair to soon take an important rank among the oil fields of the United States. The oil thus far obtained is of a very superior quality, having a paraffine base, and is well adapted for the manufacture of illuminating oil. The quality of the oil is all that can be desired, as it yields by weight 17.1 per cent gasoline and naphtha, 33.4 per cent illuminating petroleum, 27.1 per cent heavy illuminating and headlight petroleum, 20.4 per cent of lubricating petroleum and paraffine, and leaving but 2 per cent for carbon and loss. The specific gravity is .81, equal to 43 degrees Baume. The oil is worth a barrel from \$8 up, and can be disposed of as rapidly as it is produced. Some of the wells are very productive.

It is to make known the extent and value of this field that this special edition is being prepared. It is believed that the forthcoming edition will accomplish much toward giving the general oil public on the Pacific Coast, in the East and in Europe, a better conception of the present and prospective value of these new fields than could be given in any other way.

The representative of the PACIFIC OIL REPORTER is now in the Wyoming field obtaining the necessary data, photographs, and

general information necessary for a thorough description of the district, and the results of this careful examination can be relied upon as truthful and authentic, without exaggeration or any attempt to boom properties or float the stock of any fake or "get-rich-quick" concerns and shady oil schemes.

Any aid which may be extended to him in the way of information and reliable statistics will be greatly appreciated.

The edition will be published on May 23rd.

Orders for advertisements and extra copies must reach this office not later than May 20th.

The article on the fourth page of this issue plainly demonstrates the fact that the asphalt industry

California has entered upon a new, important and successful era of its history.

Although during the last two

asphaltum importer on their own terms and to put up as aggressive a fight in behalf of California asphalt as can be made by any powerful company which has the double advantage of possessing unlimited capital, and can produce vast quantities of a product, the equal in every respect to the Trinidad, and in many respects its superior.

By the close of 1903 we expect to see the asphalt industry ranking among the first industries of California both in the amount of its output and in the wealth it is adding to the manufacturing industries of the State. California asphalt will soon be found covering miles of streets in all the Eastern cities, and in use wherever before Trinidad asphalt has been the only asphalt recognized as possessing sufficient merit

"Looker on" in last week's News-letter says: "I

Not Definite hope that the Enough overhead decorations that are to

be put up in honor of President

## The Special Wyoming Edition

WILL BE PUBLISHED ON

. . . May 23rd . . .

It will be ELABORATELY ILLUSTRATED and contain the latest, fullest and absolutely correct information concerning this new and important oil field.

Orders for advertisements or extra copies must be sent in not later than May 20th.

Address this office or our Wyoming representative

Mr. E. S. Eastman, Evanston

years the asphalt industry has grown very materially this growth has been accomplished in the face of great obstacles and discouragements. There has been no union of interests among the refiners. On the other hand, the refiners have often worked against each other, and by turning out an inferior grade, by unwarranted lowering of prices, by unwise and unnecessary competition have injured rather than benefitted their business and prospects.

By establishing a co operative sales agency, for such the California Asphaltum Sales Agency really is, the asphaltum refiners have advanced a long step in the direction of future great success. At the head of the agency is Mr. John Baker, Jr., the successful manager of the sales department of the powerful Union Oil company, the greatest producing oil company on the coast and one of the greatest producing companies in the world. This company has two oil refineries itself and is now practically back of all the asphaltum interests on the coast. It proposes to meet the Trinidad

Roosevelt's visit will be so magnificent that they will keep his eyes skyward. If he ever gets sight of our streets he will carry away a mighty poor opinion of San Francisco. But he shouldn't blame the city for it. The people here elected a mayor in good faith. He appointed a board of public works (in good faith?) and our streets have been allowed to go to ruin. They are disgracefully rough and uneven. Maybe we don't deserve anything better, having been foolish enough to elect Schmitz for mayor—but I hate to think of the president's discovering our shame."

"Looker on" should go a step farther and state the condition of our streets is due to the use of bituminous rock pavement. If the pavements were made of oil asphalt our streets would always be in good condition.

Oil at Bakersfield is about 30 cents. Some contracts show a trifle over this figure, and some are said to have been made for a little less. These figures are for short time contracts.

## Oil and Religion.

An inquirer wants to know if The Petroleum Gazette has information as to the progress of an enterprise indicated as follows in a press dispatch sent out from Worcester, Mass., some time since:

"The Rev. Roland A. Nichols, formerly of Cleveland, but more recently of Chicago, has arrived to assume the pastorate of the Highland Street church. He has arranged to bring from Cleveland fifty experienced, evangelist, salesmen, who, under him as general manager, will look out for the interests of the W. V. Smith and company, oil operators and producers of Cleveland, during the day-time and will conduct religious revivals at night. It is planned to flood Worcester with both religion and oil stock. The Rev. Mr. Nichols brought here Fred Nichols, a member of the Smith Oil company, who represents the Lima field and sells its product to the Standard Oil company. He receives a salary of \$10,000 a year, but he has refused to accept it and will give it to the poor and toward a fund for building a new church. He will live on his salary as New England manager for the Smith Oil company. Besides the fifty evangelist salesman, who are said to be 'hustlers' in both lines of work, Mr. Nichols will have the help of some noted revivalists."

The Petroleum Gazette is sorry to reply that it has no special advice as to this matter—does not even know whether in the plan referred to the idea was to convert Worcester sinners first and sell them oil stocks afterwards, or whether it was to contribute to a feeling of overflowing gratefulness or repentance as the case might be, by loading them up first with the oil stocks. The enterprising mixture of piety and business indicated recalls the story of the poor but thrifty congregation that secured a free supply of new hymn books from an advertising firm, and found that the first selection they used therefrom ran something like this:

"Hark, the herald angels sing,  
Starter's Pills are just the thing!  
Peace on earth and mercy mild,—  
Two for a man and one for a child."  
—Petroleum Gazette.

## In Canada.

The Ontario Oil and Gas company of Cleveland, Ohio, has bought 900 acres of land in Pelham, west of Welland, Ontario, and 300 acres in the neighborhood of St. Davids, and on May 1st will commence work in sinking test wells to ascertain whether or not oil or gas in paying quantities is to be found. Electric power will be used in drilling. Experts consider the indications as very favorable. Two other companies have secured property in the same district and are drilling near Tont-hill.



**OILING ROADS.****The Process is a Great Success in California.**

In California the use of oil for sprinkling roads is past the experimental stage, and its success is attested by the thousands of miles of roads and streets in the State that are either already oiled or for whose treatment plans are being made. Nearly every municipality in California is engaged in improving its residence streets with oil, and every county is letting contracts for the oiling of country roads.

The California oil has an asphalt base, that is used on roads containing from forty to sixty per cent of asphaltum, and when properly mixed with the soil forms a bitumen.

The oil has been used on the macadam roads of Golden Gate Park in this city with satisfactory results. Only for four or five days after its application was the odor offensive, and no word of complaint is ever heard on account of the smell. With one sprinkling a year these roads have sustained an enormous travel, being among the most popular drive-ways in the park. But it is in the making of a road metal by saturation of a layer of soil with oil that the great amount of road improvement has gone forward in California during the past few years. With the use of crude oil in which asphaltum is so large a component part a crust is formed almost as good as asphalt pavement, and this whether the soil be sandy, alluvial or adobe. The elasticity of a well-prepared road is all that can be desired. It yields agreeably under foot and vehicle. It is free from dust in summer and from mud in winter, and can be kept as clean as an asphalt pavement. After driving over it for several hours there is no trace of dust or speck of oil on buggy or clothing of driver.

While the odor from a California oiled road may be detected for several days after treatment it is not objectionable. Only immediately following application is it at all disagreeable. The people of California find no objection on account of the smell and the extension of oiled roads is welcomed everywhere. They are no longer an experiment and no one would be willing to dispense with them. Householders and travelers are no longer troubled with dust, the rain water is quickly shed to the gutter, the roads are always clean and the oil does not pack to the feet of the pedestrians.

The cost of treatment of a mile of road for three years, at the present price of oil, will not exceed \$300, of which one-half will be expended the first year. The best results have been obtained where two applications were made the first year, one the second and

one the third. After that it is only necessary to keep the road in repair. At a recent convention of California's municipal officers the City Engineer of Fresno, where streets and country roads are being oiled extensively, gave an estimate of the cost at that place. The price of oil averaged 75 cents a barrel, 125 barrels being required for the first application and fifty to seventy-five barrels for the second, making a total cost of about \$200 a mile. The cost of water sprinkling per mile in Fresno, where the summer is long and dry, had been \$700 annually. One of the more recent projects in the interior of the State is the oiling of the stage road from Raymond to the Yosemite valley.

Experiments in sprinkling with California oil began in Southern California seven years ago, and since then much has been learned of its use. It has been determined that the gravity of the oil is an important factor in its adaptability to various soils. For sandy and alluvial soils the heavy quality of oil produces the best results, while the lighter oils are better for clay and adobe soils.

Before oiling the roadbed should be carefully prepared, well graded and shaped and the surface smoothed and packed as firmly as possible. The oil should be applied in such quantity as the ground will absorb.

**Oil in an Orchard.**

Governor James H. Peabody has become interested in the Florence oil belt, and his share of the profits in one producing well is no small amount. His interest in wells, to which reference is made are those now drilling and producing on the Frazer orchard in the west end of Florence, Colo. This orchard has recently come forward with a better record as an oil producer than it ever had as an apple grower. The first well was drilled near the heart of the fruit producing belt, and during December produced 156 barrels of oil a day, which netted the company \$4,000. Oil was struck at a depth of between 1,800 and 1,900 feet. Another well is being drilled about 400 yards distant from the producer. It is now thought that many other fine producers will be developed in the same area. In the first well enough gas accompanies the oil to supply fully half the fuel needed to pump the producer and drill the other. At one time, the Frazer was the largest bearing orchard in Colorado, and for ten or twelve years was wonderfully productive and profitable.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**OIL IN COLORADO.****Eighty-two Wells Pump 200 Barrels a Day.**

The Boulder oil field of Colorado has been investigated during the last year by Prof. N. M. Fenneman, of the United States Geological Survey. The principal results of his investigation are given below, summarized from a report which is now in press.

Attempts to find oil in the vicinity of Boulder date back to 1867. The surface indications consist of a strong bituminous odor of certain shales, and of seepages called oil springs.

The region borders the foothills, most of the drilling being in nearly horizontal strata about three miles east of the "hogbacks," in which the rocks are uplifted at angles of fifty to ninety degrees. The drilling is in the upper 2,000 or 3,000 feet of the Fort Pierre shale, whose thickness here is over twice that number of feet. The drill encounters mostly shale, with local hard "streaks" and "shells" and occasional sandy layers. These sandy layers bear oil and some gas.

Fresh and salt water are encountered occasionally, but holes are generally dry below 100 or 200 feet. Some require casing to avoid caving.

The local sandy layers which yield the oil have small lateral extent and may occur at any depth. They often overlap, so that two or three are pierced in one well. No communication appears to exist among such sands.

Shooting of wells is general but not universal. Some wells have been injured by the use of too heavy charges, or by shooting at the wrong place, with the result of compacting instead of shattering the rock.

The source of the organic matter giving rise to the oil is in the Fort Benton or Fort Pierre beds, the lower of these beds being more bituminous than the upper.

Eighty-two wells had been drilled or started up to February 1, 1903. Nine thousand barrels of oil were pumped prior to December 15, 1902. About 200 barrels a day were pumped during January, 1903.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

The present indications are that by August at least twenty well-boring plants will be in operation in the Kayak and Coal Oil Bay districts of Southern Alaska. Every steamer sailing for Copper river carries a large quantity of machinery and supplies for oil companies which have already secured locations. About half a dozen boring plants are now on the ground and either in operation or being set up. Seven extensive rigs have recently been shipped, and others are arriving from the Eastern states for shipment. The oil fields are so far from the base of supplies that extra pipe and apparatus are always taken. The oil properties are well located in that they contain millions of feet of merchantable timber, which will supply all the needs for building purposes for years to come. W. E. Thomas and H. R. Bradley, representing the Alaska Mining and Development company, are shipping north a heavy oil-boring plant for the development of their 12,000 acres of oil lands. M. A. Casey is shipping an extensive equipment for use on oil properties at Coal Oil bay. The men chiefly interested in the Alaska fields include a number who have heretofore operated in the oil districts of Ohio, Indiana and Pennsylvania.

### COALINGA.

Coalinga, Cal., April 26, 1903.

Esperanza No. 3 is being rigged up. This means another flowing well when completed.

The E.  $\frac{1}{2}$  of the NW.  $\frac{1}{4}$  of section 34, 19-15, has been leased by Mr. Van Bergen, of San Francisco, from the Star Oil company.

The rig that was destroyed by fire on the California Oil Fields, Limited, has been replaced with a new one, and work to complete the hole was begun the middle of the week.

After a five weeks' fishing job, well No. 4 of the Maine State company has finally been cleaned out. This will enable the company to begin rigging up on well No. 5 in the near future.

R. C. Baker has purchased the rig belonging to West, Lake & Rumbell, located on section 2, 20-14, and is moving the same to section 14 in the same township, where he is rigging up for well No. 2.

After several months' delay, the Plymouth Consolidated Oil and Development company report that they will begin drilling within a week. A lawsuit pending in the court was the cause of the delay.

The Commercial Oil company's well No. 2 is nearing completion at a depth of about 1,300 feet, and it bids fair to become one of the best producers in the field. This company will shortly begin rigging up for well No. 3.

Mr. W. B. Winn, editor of the PACIFIC OIL REPORTER, and his photographer, are in the field for a few days collecting data and taking photographs preparatory to the special "Coalinga Edition" of the REPORTER, which is to appear in June.

The old Keystone company on section 4, 19-15, that ceased operations about two years ago, after going to a depth of 1,500 feet, has just begun pulling its casing and drive pipe. The casing will be used by the Union Oil company on section 24.

Mr. Alexander Dallas, of Bayonne, N. J., president of the Caledonian Oil company, spent several days in the field in

the interests of his company. Mr. Dallas, accompanied by the manager of the company, also visited the other oil fields in the State.

The National Supply company will put in a branch store in town. Mr. Chase, their representative, was in town this week and had surveys made on the railroad company's reserve land directly east of R. H. Herron Co.'s store, where it will erect a storehouse 50x30 feet and have a platform running the whole length of the building and land for 200 feet. The location of its store has not been definitely decided upon.

A new company, bearing the name of the Wabash Oil company, came into the field last week. It purchased the rig and the entire outfit of the Grant Oil company, that operated on section 24, 20-14, up to within six weeks ago, and will begin work next week completing the hole, which is down 600 feet. Mr. R. J. Dickson, of the El Capitan, will be field manager for the company. Mr. W. Ingels, of Fresno, is the president.

The Union Oil company now holds the record for putting up a rig the quickest of any company in the field. In less than one week it has put up the derrick, rig and everything to begin drilling on the NE.  $\frac{1}{4}$  of section 24, 20-14. The present field manager of the company, Mr. Lawson, superintends the work. This is the first well of the Union company in this field, and Mr. Lawson's aggressive work will shortly determine the value of its land in that section.

### COLUSA.

The first of the week the directors of the Williams Oil company leased the old Van Gilt place, consisting of 160 acres, from Frank Schuckman. It is the intention to move the rig from the Brim lease and bore another hole near the Van Gilt seepage.—Farmer.

W. E. Youle, the oil well contractor, who went from here to San Francisco several weeks ago to raise funds to prosecute the search for oil in this county, returned here Tuesday. He announced that he would resume the drilling in the Bear Valley Oil company's well, located on SW  $\frac{1}{4}$  Sec. 15, T. 14 N., R. 4 W., in a few days. It was down 1,500 feet when work was suspended. Mr. Youle has joined this company, and from our knowledge of the man we will guarantee that the work, under his superintendency, will be performed with the greatest efficiency and dispatch.—Arbuckle Independent.

### HALF MOON BAY.

The Paxton is now working a double shift, and good progress is being made.

The Pilarcitos is still drilling and report says the well is now about 600 feet deep.

The Debenture Surety company has declared its regular monthly dividend of 5 per cent for April.

The High Gravity Oil company has commenced work, and is now running a day and night shift.

The San Mateo County Oil company are still at work on the deep well, and is going down slow but sure.

Mr. J. E. Kerr, of the Wisconsin and Paxton companies left for the East this week on business connected with the companies. The work of drilling wells on these companies' properties will continue during his absence, which will probably be for three or four weeks.

### KERN

The Fulton Oil company at Sunset, which is already drilling one well on its property, is now unloading material to erect the rigs for others at once.

Dr. J. N. Prather of Seattle, general manager of the Queen Oil company, is now working on his proposed briquette factory, which he will erect at the field.

The St. Paul at Sunset is putting its newly completed well on the pump. President A. D. Warner of St. Paul, Minn., has just been on a visit to the property.

This week the Associated Oil company perforated well No. 24 of the Kern Oil company. The well is good for 300 barrels a day at the least. The Associated is now shipping out oil at the rate of 1,500 cars a month. Frequently the shipments per day amount to sixty cars, and more cars would be shipped out if the railroads could furnish them. The roads are adding to the number of tank cars as fast as possible in order to keep pace with the increasing oil business. Work on the reservoirs of the Associated in the Kern and McKittrick fields is progressing with great rapidity.

What was thought to have been an unmixing evil when the McKittrick company struck artesian water in its fifth well at McKittrick now appears to have been a blessing in disguise. The Californian says the water has been shut out of the other wells so that they are not damaged, and the water well promises to be among the company's most valuable possessions. The water is found to be superior to that furnished by the pipe line. It contains sulphur, borax and some salt, but not enough of the latter to prevent its being used in the boilers, and the company now expects to cover the district with pipe lines; several contracts are being negotiated for now. The water is also valuable for its medicinal properties. It is said to quickly relieve rheumatism and kindred complaints, and many people in the vicinity visit the well to bathe in the water and to drink it. Some remarkable cures have been reported. The company has in serious contemplation the erection of bath houses on the premises. The temperature of the water is 105, and the well throws a six-inch stream for a distance of five or six feet. It is estimated that the daily flow is 15,000 barrels.

The stock of the Monarch Oil company took a sudden spurt last week and in two days went from 23 to 50 cents, thousands of shares being bought at

this figure. The reason is that the news leaked out that this company will soon be on a dividend-paying basis. The company practically closed a contract for the sale of two million barrels of oil at a good figure on a long time contract. They have now but seven wells but will begin sinking more at once. They have 160 acres of as good land as there is in Sunset. They have three companies as lessees, each of which must drill a well to the acre as soon as transportation facilities are given. If the California Consolidated Oil Fields company, Limited, does not put down a pipe-line at once, as is expected the Monarch will lay a line themselves. The company has no debts and has \$20,000 in the treasury to be expended immediately, and much more if necessary. W. A. Mitchell and Captain Barenson have lately secured 94,000 shares, A. B. Spreckles 55,000, and E. Aigeltinger has 30,000. These gentlemen have resolved to make the Monarch one of the biggest producers in the field, and have secured the contracts which will necessitate some extensive drilling operations at once. The Sunset field looks particularly bright at present, and the good times have only just begun.

### LOS ANGELES.

San Pedro is properly excited over the discovery of a flattering indication of oil within a few miles of its business center, and there is prospect of a revival of interest in oily matters. It is now reported that a good flow of seepage oil was found oozing from a small stratum in the bluff, about three hundred yards south of the government reservation. This find was made this week by James Olsen. The hillside was partly caved in where the oil was flowing and was quite near the main bluff. Olsen believes if a well is sunk upon the spot a rich find will be made. The oil is thick, and there are other evidences that would indicate the presence of an oil-bearing stratum of importance.

Reports received Wednesday from Lancaster point to the probable development of oil in that vicinity. Within the past year a quiet movement has been developing, which has now reached its climax, in the erection of two new derricks at Lancaster and in securing options on all available open land for oil locations. The first hole drilled was suddenly plugged and no information was given out. Meanwhile the owner, J. Carter, secured as much adjacent land as possible and within the last ten days



We are organizing a gold mining company that we believe is one of the best propositions on the Coast. Small capitalization, 100 men with \$100 each to make a working fund that will easily carry the company to a dividend paying basis in a few months. Ground floor chance. About half already taken. Prefer men who put up only \$100 each, yet larger subscriptions will be received. When making inquiry send 10 per cent of your subscription, as this will go soon. If after investigation you do not want to join this new company as one of its charter members, your 10 per cent remittance will be returned in full.

A MINE, not a PROSPECT. One tunnel of more than 100 feet, with cross-cuts each way with small shafts at bottom, shows ledge widened from 14 to 30 inches; many different assays show average of \$194.32 per ton gold, small per cent silver. Second tunnel, 100 feet lower, will strike same ledge that will probably be four feet wide; also cut other ledges that show on surface.

Machinery, two-stamp mill, paid for, now being put in. 100 tons ore on dump. Mine developed so far by poor men. We will finance the company. We believe this is an unusual chance. A fortune in it. Subject to investigation. If not satisfactory withdraw your money.

Mention this paper.



machinery for two new drilling outfits have been received at the freight yards. This fact, says the Herald, taken in connection with the secrecy which has been maintained relative to the results of the first drilling, has started a second oil boom in and about Lancaster. Within six weeks city lots in Lancaster, which have been a drug on the market for five years, have doubled in value. Experts claim that the oil belt extends across and directly through the townsite. Located directly on the line of the Southern Pacific, and midway between the Newhall and Kern county oil fields, the find, if it develops into paying proportions, will mean much to the whole Antelope valley. Certain it is that land values throughout the valley have taken a sudden upward turn, and with the completion of the Kern river electric system it can be safely predicted that a big boom is an immediate prospect.

#### MONTEREY.

The Combined Oil Land company is waiting for its drillers to complete a well at Los Angeles, when the crew will be sent to San Lucas immediately.

#### SAN DIEGO.

The Western Oil company has been organized to operate on land near the village of Nestor, San Diego county. The directors are: E. A. Hornbeck, E. Thelan, F. H. Samborn, J. A. Samborn, T. S. Kellett, S. K. Williamson and George Puterbaugh. All save J. A. Samborn are San Diego and National city men. The capital stock is \$50,000.

#### SAN LUIS OBISPO.

Mr. H. Dittrich of San Luis Obispo, has recently secured a patent for a device for preventing the gases in an oil well from interfering with the oil pump in the well. The device separates the oil from the gas.

A good quality and quantity of oil has just been struck in the Cuyama district near the corner of Kern, San Luis and Ventura counties. Mr. H. Dittrich has located for a San Francisco party 10,000 acres of oil land in this vicinity.

#### SANTA BARBARA.

There is talk of boring to begin within thirty days on the G. V. Smith tract, in the Los Alamos hills just east of the Los Alamos grade.

J. B. Careaga, the owner of the 9,700 acre tract on which the Western Union Oil company has its fourteen producing wells, died on April 26th at the French hotel in San Luis Obispo.

There is material being hauled to the vicinity of the Eefson tract for constructing an oil derrick with a prospect of one going up in the head of the valley farmed by Vint Vancleef, making four wells in all to be immediately put down by the Union company near Lompoc.

The Santa Maria Oil and Gas company, drilling on the Whitnell ranch near Santa Maria, Santa Barbara county, has abandoned its hole it was putting down and will start another on the northeast corner of the ranch. The abandoned hole showed oil, but numerous obstacles blocked the drill's progress.

There is a great probability of the Union Oil company becoming possessed of about all the territory it has under option near Lompoc, covering nearly one hundred thousand acres, and it is given out that most of the lands will be put on the market for sale in homestead tracts, with the oil rights reserved.

The Union Oil company commenced hauling material with which to erect a derrick to begin operations for putting down a third well near the point on the Purisima ranch, where bituminous rock was quarried, some two and a half miles west from the well so successfully put down. This is in harmony with what has been put out, that this company intends to test all their vast territory, that

its value for oil may be made known speedily.

On Monday last a company of oil men were driven to the region of the Crawford property for purposes of inspecting more critically its surface condition as oil territory. Mr. Crawford, while not over-anxious to sell, will sell at a figure that is considered a fair price for oil land, and it is not improbable that a deal will be made to include his lands with a thousand or more acres in that quarter. It is presumed that the parties making the investigations belong to an independent company that expects to begin operations very soon.—Lompoc Record.

Captain Matson, president of the Pacific Oil and Transportation company, President Slauson of the Western Union Oil company, and Judge Bicknell of Los Angeles, were visitors at the Western Union Oil company's holdings this week. The officials of the Western Union are now preparing to develop their field very extensively, and their visit here marks the beginning of an active campaign. For the past few months very little development work has been done, owing mainly to the fact that the property was likely to be sold to the Pacific Oil and Transportation company, which company held an option on it until April 1st. The company has practically every barrel of its oil sold as fast as it produces it. The oil being of exceptional light gravity, it is easily sent through a pipe line to Alcatraz, where it is partially refined and then sent to the Hawaiian islands and the Orient. The company also supplies the Union Sugar company with as much as six hundred barrels a day during the sugar-making period.—Los Angeles Times.

#### SARGENTS.

A pipe line was surveyed on Wednesday of last week from the Watsonville Oil company's wells to Sargents station. A storage tank will be placed on the hill in front of the depot, so that cars may be loaded from a sidetrack at the station.

The well on the Watsonville Oil company's property at Sargent's came up to expectation last Friday and verified the rumors regarding its producing capacity. An occasional gush of gas would throw oil and water high into the derrick. A pipe-line to Sargents is projected and the company already has order for a daily contract for a large quantity of oil. The well can be relied upon for forty-five barrels a day at least.

"The drill at the Watsonville Oil company's well was forty-five feet in the oil sand this afternoon," says the evening Pajaronian of the 18th, "and the casing was following closely and hanging free in the hole. The progress made during the last two days was very gratifying to the managers, and everything points to further success in passing through the thick stratum of oil sand. The sand is very rich in oil, and every indication points to a big record for that well when the casing is perforated. The oil stratum may be from one to two hundred feet deep."

#### VENTURA.

The Pacific Coast Oil company has completed a pipe-line to the Modello field north of Piru city. The oil will be piped to the Ventura tanks of the company.

The Santa Paula-Saticoy Oil company has been incorporated in San Francisco. Capital stock, \$100,000, with \$5,000 subscribed and Anthony C. Hellman, William H. Morrow, Burnette G. Haskell, Sidney V. Smith, William A. Costello, of San Francisco, directors.

#### WHITTIER.

The Whittier Oil and Development company has its plant rebuilt after the fire of a few weeks ago, and drilling is again under way.

The Octave Oil company has incor-

porated with a capital stock of \$50,000, of which amount \$5 has been subscribed. The directors are Dan Murphy, T. A. O'Donnell, G. Holterhoff, Jr., W. I. Hollingsworth and R. H. Lacy.

#### WYOMING.

Branson, Wyo., April 24, 1903.

The American Consolidated Oil company have commenced their new well on section 14, and are down 300 feet. They expect to get oil within sixty days at about 1,100 feet.

Mr. R. S. Spence, reports the finding of a large body of oil bearing shale on his property south of Fossil. A peculiar thing about the shale is that it produces an almost chemically pure benzine, running about a barrel to the ton.

The Oil Well Supply company have established a warehouse at Spring Valley. Twenty-five cars of machinery are already on the road to that point to fill orders of companies intending to commence operations there this spring. Much disappointment is manifested by parties here on account of the warehouse going to that point as it was originally intended to have a machine shop and warehouse here. Mr. W. H. Cronk, of Bakersfield, California will act as salesman for the supply company.

The Union Pacific company are bailing their well on section 27 and using the oil in the mines for lubricating purposes. It is said the company will ship no more oil to the mines but use that from the well, it being utilized for all purposes, on machinery, in miners' lamps, etc. Until recently the company had contended that there was no oil in the well, but now that the establishment of a mineral reserve has put a stop to further contention for land it seems to be the purpose of the railroad company to aid all possible in legitimate development enterprises. Your correspondent visited the Spring Valley district yesterday and never saw the situation so bright. Fifty rigs will be working there by the first of June.

#### The Pipe Line.

The interest of the oil men seems centered on the working of the pipe line from Bakersfield to Point Richmond. The line is now in order as far as Corcoran, the end of the second 28-mile section, and the oil is fast pouring into the tanks at that station. The line is in condition to receive the oil on the next two sections, as these have been thoroughly tested by water and are ready for the oil, which flows all right as soon as the pipe becomes warmed up. The line is now cold, and the only difficulty experienced is from this fact. Once it becomes warm it will never be allowed to become cold, and once the oil goes through it will continue to run uninterrupted. When the line is full it will contain 100,000 barrels of oil, and the tanks along the line will contain 200,000 barrels more.

#### Is Bankrupt.

In the New York bankruptcy court three weeks ago Albert E. Hartcom was appointed receiver of the Bernier Publishing company, publishers of the National Oil Reporter. He is to continue the publication if he can do so without incurring additional indebtedness. John S. Malloy, who has a claim for \$4,500 against the company, filed a petition and affidavit

upon which the receiver was appointed. The total indebtedness is said to be inside \$15,000. Aside from the good will of the paper, the only assets are the office fixtures, valued at \$1,500. The paper has never been so conducted as to merit the confidence and support of operators of legitimate oil enterprises, and its loss is a benefit to the oil industry.

#### OIL INSTEAD OF WATER.

The S. P. Sprinkles Streets of Oakland Along Its Lines.

The Southern Pacific Railroad company commenced the work of oiling the streets along their local lines last Thursday and the tracks from the mole will be thoroughly oiled clear through Oakland on Seventh street hereafter. The work was commenced on the mole and it will be several days before the Sprinkling wagon gets to Seventh street.

The company has made preparations for a thorough job of the oil-sprinkling. A suitable cart has been secured which will hold about 600 gallons of crude oil and so arranged that it will sprinkle streets very liberally.

The necessary connections have been fitted to the pump, situated close to the large oil tanks in the yard, so as to fill the cart and heat the oil to a high temperature, as it must be sprinkled hot to be successful. The heating is done by means of steam pipes under pressure of from eighty to one hundred pounds and thus it gives the oil a temperature of several hundred degrees.

After the oil has been sprinkled on the road a heavy roller is run over it pressing it into the soil and the ultimate result is a smooth hard surface not unlike asphaltum pavement. One of the chief advantages of the oiled roads is the freedom from dust.

The company has about 70,000 barrels of oil in the mammoth tanks to draw on if necessary and should this not be enough there are six more large tanks at Melrose which are full of oil. The plan of oiling the roadbed through the city was hit upon to do away with the system of sprinkling nightly with salt water which has been in vogue for years. The action of salt water is said to be very injurious to the rails.

#### LOOK OUT

FOR THE

#### SPECIAL EDITION

OF THE

#### PACIFIC OIL REPORTER

ON THE OIL FIELDS OF

#### WYOMING

To be issued in May

#### DIVIDEND NOTICE.

PACIFIC OIL COMPANY.—ON APRIL 27, 1903, declared a dividend, No. 14, of four cents per share, payable June 1, 1903. Books close May 26, 1903. GURDON BRADLEY, Assistant Secretary.



**OIL AT NAPLES.**

**Indications of a Vast Deposit of Petroleum are Apparent.**

British Consul Neville-Rolfe, stationed at Naples, makes the following report on the finding of petroleum near Naples.

When sailing in a direct line from the point of Posilipo toward Sorrento, and about five miles before reaching the Sorrento point, a strong smell of petroleum may be observed in calm summer weather. Two tracks of the smell are distinctly perceptible, the one at latitude  $40^{\circ} 41' 30''$  longitude  $14^{\circ} 19'$ , and the other at latitude  $40^{\circ} 42'$  longitude  $14^{\circ} 18' 30''$ . The first time this was observed (the present writer being on board the yacht), it was attributed to the possible leakage from a petroleum tank steamer, or to the discharge of petroleum from a passing ship, there being no petroleum whatever on board the yacht, which is a sailing yawl. On the recurrence of the phenomenon, several months later, the party on board comprised a scientific gentleman, who at once came to the conclusion that there must be a subaqueous petroleum spring at this spot or near it in a southerly direction. This casual discovery led to research upon the subject and to an inquiry into the presence of petroleum in other parts of this consular district. The only ancient record of the oil in the immediate

vicinity of Naples is that of the Bagno del Petroleo, which existed near the Stufe di Nerone, between Pozzuoli and Baja—that is to say, about fifteen miles from the submarine source mentioned above. This spring no longer exists, and the last mentioned of it was by Bartolo in 1679. It was much praised by mediæval writers for its hygienic properties in cases of leprosy and cholera, and also for its curative effects on the limbs of patients, to which they assert it gave new vigor.

In this district, and not many miles from Naples, petroleum has been found in workable quantities, notably at San Giovanni d'Incarico and at Pico, in the valley of the Liri, both in the province of Caserta. It is a fact that as recently as 1878 600 tons, or almost all the Italian petroleum, came from Pico alone. In the last twenty years the annual output has seriously decreased; indeed, it has become insignificant as compared with the increased production of the borings in Northern Italy. Petroleum has also been stated to occur at Tramutola, on the Gulf of Taranto, and asphalt is recorded on the east side of the Abruzzi, about twenty miles from Pescara (redwood). Asphalt has also been found in the province of Salerno.

The depth of the water (80 fathoms) at the spot in the Bay of Naples where the smell was no-

ticed is too great for the collection of the oil to be commercially practicable, but the long continued escape of petroleum in the immediate vicinity of the Apennine limestones of the Sorrentine peninsula is an indication that deep borings might be successful, and might ultimately yield as profitable a supply of petroleum as the borings in Northern Italy, near Bologna and Piacenza. These extend along anticlinals of the tertiary limestone, and, therefore, are geologically similar in many respects to the country in or near which the newly discovered petroleum spring occurs.

**Big Eastern Deal.**

A dispatch from La Porte, Ind., says: Oil properties involving between \$6,000,000 and \$7,000,000 in the Trenton Rock fields are to be transferred to a French syndicate under a deal just closed. The property includes thousands of acres of leases, hundreds of wells and a production of thousands of barrels, pipe-lines, tank cars, refineries, and all equipments. The negotiations have been conducted by William L. Russell of Lima, Ohio, and Charles E. Russell of La Porte. The syndicate will operate with the United States Petroleum company and the National Consolidated Oil company will control most of the crude oil in Ohio and Indiana. The transaction makes the syndicate a formidable rival of the Standard Oil company.

**The New Franklin.**

When the plans which have been formulated by the New Franklin Oil and Refining Company of Los Angeles, Cal., have been carried out, there is every reason to believe that the company will have a plant which will prove to be a splendid dividend earner. Since June, 1902, the company has paid 1 per cent a month on the par value of \$1.00, the profits being made from the refining of crude oil and the sale of the asphalt and by-products. The company is now busily engaged in installing a plant for the manufacture of "felt" paper to be saturated with asphalt for roofing purposes. For several months this work has been going on, the paper being purchased in the East. With the equipment of its own a material saving will be effected, and the dividends should eventually be materially enhanced. The company has also acquired the property of the Park Crude Oil Company of Los Angeles, and will be able to produce a goodly proportion of the crude oil which it will use at less than one half the present cost. The combination will make a most effective one and should prove an excellent investment. The additional issue of shares to raise the funds necessary for this work are being handled by C. M. Hatcher and Company, No 262 Washington Street, Boston, Mass.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

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**DOUBLE LEASING.**

Important Decision by the West Virginia Supreme Court.

The supreme court of West Virginia has rendered the following opinion in a suit involving the question of double leasing land for oil and gas purpose. The case is the

Eclipse Oil company vs. Henry Garner, et al, from Wetzel county; opinion by Dent; in which the decree of the circuit court is affirmed. The case deals with adverse oil leases and involving valuable oil property in Wetzel county. The Eclipse Oil company leased property from Henry Garner and afterwards Garner leased the same lands to the South Penn Oil company, the latter developing the territory and paying Garner his royalties. The Eclipse company sued Garner, and South Penn Oil company and the Eureka Pipe Line company, asking for an accounting of all the oil that had been taken from the land, claiming it had a valid lease thereon. The circuit court dismissed its bill, from which the appeal was had. This suit is the sequel to the chancery cause of the Eclipse Oil company vs. the South Penn Oil company et al, decided in 47th W. Va., page 84, in which the leases of the Eclipse company were held void. The Eclipse company claims that after

Garner had leased to the South Penn Oil company it paid to Garner \$4,350 for rentals under its leases, and that Garner accepted the same as full pay for two years, the last expiring November 10, 1899. The only question before this court was what rights the Eclipse company acquired by payment of the rentals before mentioned, after its lease had been avoided, and as to this Judge Dent holds. A lessor executes at different times two sets of oil leases to two different lessees, reserving the usual royalty, and after the first leases have been avoided by the execution of the second, the first lessee pays two years' rental money to the lessor with full knowledge of the execution of the second lease, such payment does not entitle such lessee to claim the reserved royalty or any part thereof, either in law or equity.

**Standard in Indiana.**

The Standard Oil company, the producing branch of which is known in the oil field as the Ohio Oil company, has secured the largest single oil lease in Blackford county, Ind., and will proceed at once to drill it for oil. The farm consists of 625 acres, is owned by J. B. Scott of Hamilton, O., and is located in Washington township. Already two wells have been sunk on the place, and it is the intention of the big concern to drill thirty-five more wells at once.

**LIVELY COMPETITION.**

In Pennsylvania the Standard Has a Successful Competitor.

Up in the Clarendon field in Warren county, Penn., the Standard Oil company has some competition of the right sort. The Sistersville Review says John Ellis & Co. are paying 15 cents a barrel premium for oil in Warren and Elk county fields, and are extending their pipe lines into Forest county. The Standard Oil company, in the face of the anti-discrimination laws, in order to meet and check the competition are carrying oil for a pipeage charge of 10 cents per barrel and are carrying credit balances free of storage for a period of six months. It is only competition that is competition that can benefit the oil producers.

The pretensions of the Pure Oil company to a competition of the Standard, where it always buys and sells on Standard quotations, can scarcely benefit any except the few refiners who are making the enormous profits of the business.

John Ellis & Co. are also in the refining business, and it is very evident that they find that the prices they receive for refined products in "the markets of the world" justifies them in paying advanced prices over those of the Standard Oil company, or in other words, in order that they may

secure a supply of crude oil they are willing to make a more satisfactory division with the producers. The price of \$1.50 per barrel fixed in the Seep purchasing agencies and followed by the Pure Oil company, is not one that will cause increased drilling in old and depleted territory, and it is that class of territory from which the supply of high grade oil is being attained. The stocks of oil are being reduced, but the reduction must necessarily be slow, because the condition of the oil is such that it is available for shipment only by treatment. The shipments are only slightly in excess of the receipts, not because "the markets of the world" will not take it, but because the stock of oil is represented by "tank bottoms." Dan O'Day's pumpers are expected to continue the expenditure of their capital and energy and walk into the purchasing offices and take their measly allowance of \$1.50 per barrel with good grace. What the oil country needs is competition that competes, but as long as the Standard Oil company is permitted to control railroads and all avenues of transportation such competition is improbable except in small ways.

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Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

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We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

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All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

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## Articles of Incorporation.

The following articles of incorporation have been filed in the office of the Secretary of State:

The California Coast Oil Land company. Principal place of business San Francisco. Capital stock \$1,000,000, with \$5 subscribed, and George A. Budge, Frank Saville Smith, Eben F. Chase, I. P. Nieto and Charles Kormel, of San Francisco, as directors.

Western Well Supply company. Principal place of business, San Francisco. Capital stock \$30,000, \$15,000 subscribed. L. E. Nehrgall of Evanston, Wyo., R. V. Ellis, R. T. Staley of San Francisco, A. D. King of Hanford, B. B. Gosling of Coalinga, directors.

Fearless Oil company. Principal place of business San Francisco. Capital stock \$120,000, \$25 subscribed. Adolph B. Spreckels, Robert S. Moore, William Matson, W. S. Davis and F. S. Samuels, of San Francisco, directors.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, April 19th:

## APOLLO:

1,000 at 38..... \$380 00  
200 at 40..... 80 00

## CALIFORNIA STANDARD.

200 at 15..... 30 00

## CARIBOU.

50 at 80..... 40 00  
100 at 82½..... 82 50

## CENTRAL POINT CON.

10 at 60..... 6 00

## FOUR.

1,000 at 68..... 680 00  
1,000 at 69..... 690 00

## HOME OIL.

100 at 2 50 (S 30)..... 250 00  
20 at 2 65 (S 10)..... 53 00  
100 at 2 45..... 245 00  
50 at 2 45 (S 90)..... 122 50  
2,300 at 2 50..... 5,750 00

## INDEPENDENCE.

3,000 at 12..... 360 00  
8,000 at 13..... 1,118 00  
7,000 at 14..... 98 00  
1,000 at 13 (S 90)..... 130 00  
1,000 at 13 (B 90)..... 130 00  
2,000 at 13 (B 30)..... 260 00  
5,500 at 14 (B 30)..... 770 00  
3,000 at 14 (B 90)..... 420 00

## JUNCTION.

1,800 at 07..... 126 00  
1,300 at 08..... 104 00

## LION.

10,150 at 07..... 710 50

## MONARCH.

1,000 at 35..... 350 00  
1,500 at 40..... 600 00  
100 at 41..... 41 00  
200 at 42..... 84 50  
100 at 43..... 43 00  
100 at 44..... 44 00  
1,414 at 45..... 636 30  
10,900 at 49..... 5,341 00  
18,725 at 50..... 9,362 50  
400 at 50 (S 10)..... 200 00  
500 at 50 (S 90)..... 250 00  
300 at 50 (S 30)..... 150 00  
5,000 at 51..... 2,550 00  
100 at 52..... 52 00

## MONTE CRISTO.

783 at 1 30..... 1,017 90  
150 at 1 32½..... 198 75

## OCCIDENTAL OIL.

500 at 17 (S 10)..... 85 00  
500 at 18..... 90 00  
1,000 at 19..... 190 00  
9,000 at 20..... 1,800 00  
2,500 at 21 (B 60)..... 525 00  
5,800 at 21..... 1,218 00  
1,000 at 22..... 220 00  
1,500 at 22 (B 5)..... 330 00  
2,000 at 22 (B 90)..... 440 00

## OIL CITY PETROLEUM.

3,600 at 31..... 1,116 00

## PETROLEUM CENTER.

1,100 at 06..... 66 00  
500 at 07..... 35 00

## PITTSBURG OIL.

2,000 at 45..... 900 00  
4,300 at 50..... 2,150 00

## SHAMROCK.

650 at 20..... 130 00

## SOVEREIGN.

35 at 41..... 14 35  
1,620 at 42..... 680 40  
300 at 42 (C)..... 126 00

## STERLING.

200 at 3 30..... 660 00  
100 at 3 40..... 340 00

## TWENTY-EIGHT.

100 at 3 40..... 340 00  
450 at 3 45..... 1,552 50  
200 at 3 50..... 700 00  
900 at 3 55..... 3,195 00  
700 at 3 60..... 2,520 00  
100 at 3 60 (S 30)..... 360 00  
100 at 3 65 (S 30)..... 365 00  
500 at 3 65 (B 90)..... 1,825 00  
2,000 at 3 70 (B 30)..... 7,400 00  
300 at 3 75 (B 60)..... 1,125 00  
100 at 3 75 (B 90)..... 375 00

129,107 Shares Amount \$64,429.20

## SPRING VALLEY.

10 at 83 50..... 835 00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	.....
Apollon.....	.40	.....
Asso. Oil Co. Stock		
Trust Certificates.....	.30	
Aztec.....	.82½	
Bear Flag.....	.05	.....
California Standard.....	.13	.....
Caribou.....	.82½	.85
Central Point Con.....	.80	.....
Chicago Crude.....	.23	.....
Clairmont.....	.31	.....
Esperanza.....	.75	1.00
Fauna.....	.05	.08
Four.....	.68	.70
Hanford.....	117.00	123.00
Home.....	2.45	2.50
Imperial.....	19.00	.....
Independence.....	.12	.13
Junction.....	.07	.08
Kern.....	4.50	5.00
Kern River.....	14.00	.....
Lion.....	.06	.07
Monarch of Arizona.....	.50	.51
Monte Cristo.....	1.27½	1.35
Occidental of West Va.....	.20	.....
Oil City Petroleum.....	.30	.31
Petroleum Center.....	.05	.08
Pittsburg.....	.51	.....
Peerless.....	15.62½	16.00
Reed Crude.....	.32	.....
S. F. & McKittrick.....	2.50	.....
San Joaquin O. & D.....	6.25	6.50
Senator.....	.60	.70
Sovereign.....	.42	.....
Sterling.....	3.25	3.35
Superior.....	.04	.07
Thirty-three.....	9.00	.....
Toltec.....	.15	.20
Twenty-eight.....	3.55	3.75
United Petroleum.....	118.00	.....
Union.....	64.00	.....
West Shore.....	3.00	.....
Wolverine.....	.52	.....

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" Merced	1:20 p	1:40 p	.....	1:28 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.

8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.

9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.

4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.

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The old Kaimiloa, the only naval vessel ever owned by the Hawaiian kingdom since very early times, is now a fuel oil hulk in the harbor of Honolulu, and was put into active service recently in supplying the Alameda with fuel oil from the storage tanks at Iwilei.

The Kaimiloa was originally a coal freighter on the coast of England. She was purchased for Kalakaua and made the flagship of this navy, and was, in fact, the whole navy. She carried the Hawaiian embassy that went to Samoa to negotiate the treaty with the Samoan kingdom, which was to inaugurate Kalakaua's policy of the "primacy of the Pacific" for Hawaii.

On her return from the failure of this embassy the Kaimiloa was allowed to lie in the harbor, gathering barnacles. A few years later she was sold to the Inter-island Steam Navigation company, which, however, never found any use for her until the introduction of oil for fuel in the islands, when she was put in commission to be used in the harbor, carrying oil from the tanks to vessels in the harbor.—San Francisco Chronicle.

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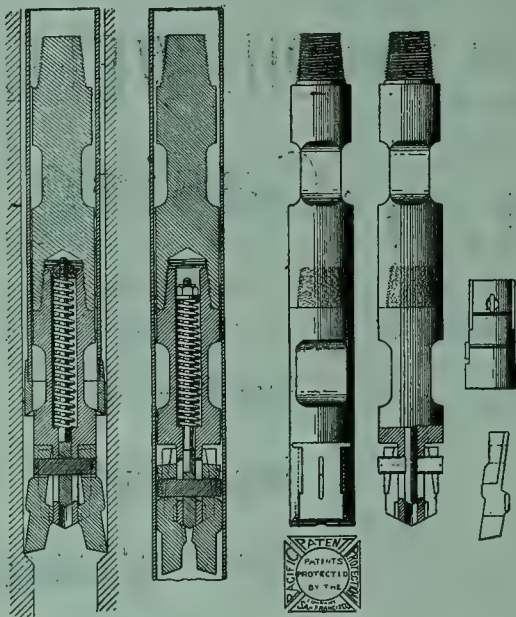
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 27.

SAN FRANCISCO, CAL., SATURDAY, MAY 9, 1903.

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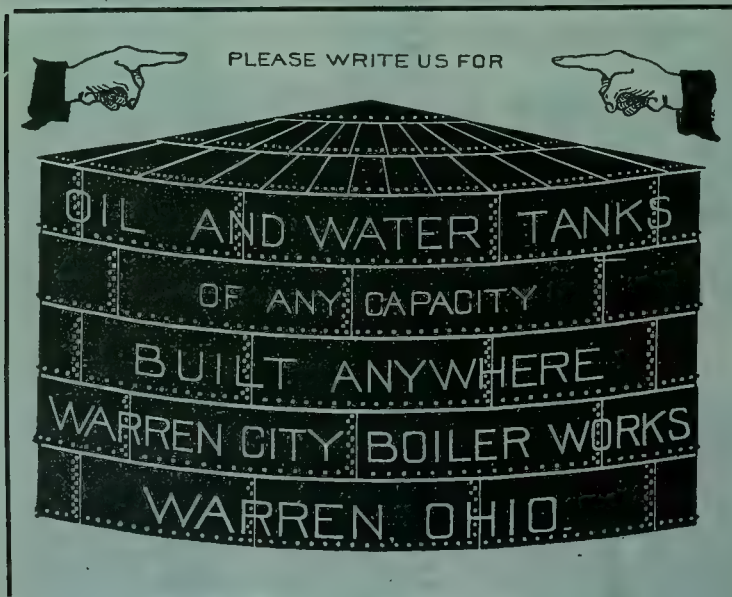
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Will be pleased to send samples and quotation on all grades  
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# PACIFIC OIL REPORTER

VOL. 4. No. 27.

SAN FRANCISCO, CAL., SATURDAY, MAY 9, 1903.

PRICE, TEN CENTS.

## THE RUSSIAN OIL FIELDS.

### Great Falling Off in the Production During the Past Year.

For the First Time Since 1894 These Fields Fail to Show An Increased Production, and the Price Obtained Has Also Declined.

Consul James C. Chambers' annual report on the Russian oil industry in 1902 has just been published by the Board of Foreign Commerce at Washington and, like its predecessors, is a careful, accurate and comprehensive review and statistical abstract of the petroleum situation in Russia. The most striking features of the report are the falling off in new production and a slight decline in the price of crude oil. For the first time since 1894, the Russian oil fields have failed to show an increase in their output. The decline was not very great, and there is still an enormous production of Russian oil which tends to depress the industry, although the conditions of supply and demand were more nearly on even terms the past year than for a number of years back.

The total production of crude oil in the Baku fields was 76,383,463 barrels in 1902, as compared with 80,553,152 barrels in 1901. This is a decrease of 4,169,689 barrels, which is at the rate of 11,500 barrels a day. The year 1901 remains the banner year and marks the maximum production of the Russian oil fields. In addition to the production of the Baku field, the Grosni oil district produced 4,109,918 barrels in 1902 and 4,125,999 barrels in 1901. The average daily yield of the Baku fields was 209,270 barrels in 1902, as compared with 220,694 barrels in 1901. The production at Grosni was 11,304 barrels a day in 1902 and 11,482 barrels in 1901. This makes the total yield of Russian oil 232,176 barrels a day in 1901 and 220,574 barrels a day in 1902. This represents a decline the past year of 11,602 barrels a day. In the Baku fields, the average number of producing wells was 1,402 in 1902 and 1,475 in 1901. This shows the enormous yield of the Russian spouters. To bring about a production of 220,574 barrels a day, each of the 1,402 wells must have maintained a steady average yield throughout the year of 157 barrels a day.

There were 358 wells completed in 1901 of an average depth of 1,086 feet, as compared with 236

in 1902, which averaged 1,302 feet in depth. The average production of the new wells in 1901 was 330 barrels as against 292 barrels in 1902. Of the 3,337 wells in the Baku regions at the close of the year, only 1,402 were producing, while 1,193 were standing idle, and the remainder were either drilling deeper, cleaning out or under some sort of repair. There were seventy-four rigs up ready for drilling at the close of the year. The production from flowing wells averaged 31,965 barrels a day in 1902 and 31,160 barrels in 1901. Of the gross production of 76,383,463 barrels in 1902, 8,216,418 barrels, or over 10 per cent, were consumed for fuel purposes in the field, or lost by fire and other causes.

The price of crude oil at the wells averaged 8.25 kopecks per pood in 1901 and only 6.65 kopecks in 1902. A pood is very nearly the equivalent of five American gallons. Figuring eight poods to the American barrel, the Russian producer averaged 34 cents a barrel for his oil in 1901 and 27½ cents in 1902. The average cost of producing oil, exclusive of royalty, is at the very lowest estimate, nearly 21 cents a barrel. Mr. Chambers states that producers, who are operating in territory held in fee or at a small royalty, claim that they could not produce oil at a less cost than from 26 to 29.4 cents per barrel. With the deep and expensive drilling now necessary, cheaper crude is an impossibility, save in cases of big flowing wells. This would indicate that the Russian oil fields have been operated practically at a loss during the past year. While the number of failures in the trade has been very small, Mr. Chambers believes that with the depression increasing and continuing at least another year, it is not at all certain that the producers can all get through successfully.

Residuum or fuel oil is the principal object of the Russian manufacturer and illuminating oil continues to be regarded as more or less a by-product. Mr. Chambers states that the demand for Rus-

sian oil for fuel purposes exceeds 115,000 barrels a day. Of the crude yield in 1902, nearly 62 per cent was converted into fuel oil, while 2¾ per cent was converted into lubricating and a little over 22 per cent into illuminating oil. The Russian home consumption of refined oil increases very slowly in spite of the low prices that have prevailed the past year, but the excise duty of over 6 cents a gallon places it beyond the reach of thousands of the poorer classes of Russian peasants, who still depend upon the most primitive means for their illumination.

It would seem, too, that the great decline in the price of refined oil at Baku in the last eighteen months would naturally greatly stimulate the export demand, but, according to Mr. Chambers' report, "the statistics show a falling off instead of increase in the exports of illuminating oils from Black Sea ports. That the high prices maintained abroad had no injurious effect upon exports is evident from the increase in the export to the United Kingdom, where, it was said, prices were the highest. Of course, with prices based upon a fair margin of profit above Baku rates, the demand in the United Kingdom might have shown a much greater increase, but that is mere conjecture."

Mr. Chambers adds:

"The principal falling off in export was in bulk and case shipment to points beyond the Suez canal. As to the cause of the decline in the volume of bulk export, I have no information; but the whole falling off in the export of refined in cans and cases is very easily accounted for by the labor troubles here interfering with the manufacture of packages. In a report from this consulate in October last the strikes of the workmen in the can and case factories here were detailed fully, and it was stated that the largest factory here had been closed nearly four months from the middle of March because of a strike of the workmen. The same factory had trouble with the workmen several times later in the year, but was not shut down more than a few days at a time till December 22d, when the workmen all went out again. However, after a month's hard times without work or money, a majority of the workmen plead to be taken back to work without conditions, and on January 26th the factory started up with about two-thirds its usual force, and is now turning out very nearly its full capacity of packages. The normal output of this factory is about 20,000 cases daily,

and therefore, with the loss of more than four months' time in the year, its output was reduced not far from 4,000,000 cases.

Few improvements in the transportation capacity between Bakum and Batum on the Black sea were made during the past year. An extension of thirty or forty miles was made to the eight-inch line from Mikhailovo to Ag-Taglia, but no pumping stations have been erected and the line is unavailable. The falling off in the deliveries of illuminating oil amounted to 20,000,000 or 25,000,000 gallons, and was due to the fact that low prices early in the year made the shipments of refined for export a losing business. In regard to the possible completion of the pipe-line to the Black sea, Mr. Chamberlain says:

Of the whole distance of 550 miles, there are now completed, as far as screwing together is concerned, about 270 miles, and it is my impression that the pipe necessary for the completion of the whole line will be delivered early this year; but there are only about 143 miles of the line in use, and it is absolutely safe to say that the line will not be in working order before three years, even if those in charge of the work should show more energy.

### Oil in Boiler Furnaces.

In the early attempts to use oil as a power fuel it was introduced into the furnace in bulk without air or steam and without any attempt to atomize it. It was simply allowed to rapprize from iron plates or from the incandescent surfaces of brick or stone within the furnace. With this method of introducing the oil, forcing the fires was manifestly impossible, as the vapor thus given off could be burned only as fast as it was formed and the vaporization was limited by the extent of the surface exposed.

It seems to have been pretty definitely settled now that better results can be obtained by introducing the oil in the form of a finely divided spray by means of an atomizer; and, so far as the mechanical part of the problem is concerned, it may be said that the greatest difficulty was overcome when it was first realized that the success of oil burning depended largely upon the efficiency obtained in atomizing the fuel. With the oil sprayed under the boilers in this way, it has been found that the fires can be forced at will even to a degree beyond that which is possible with coal under forced draft. The rate of vaporization and the combustion of the oil are limited only by the size of the burners and by the velocity with which the air and products of combustion can be forced through the furnace.—Engineering Magazine for May.



## STRANGE MANAGEMENT.

### The Mexican Petroleum Company Has A Queer Way of Doing Things.

**It is Expending Hundreds of Thousands of Dollars in Refineries, Railroads, Costly Dwellings, Etc. Before It Has Satisfactory Production.**

Of all the reports of operations that have been published lately that give occasion for wonderment among the oil men that of President E. L. Doheny, of the soon to become noted Mexican Petroleum company, is the strangest.

The following article recently appeared in a Los Angeles paper called "Oil, Mining and Finance." The article is supposed to have been published to show what a fine company the Mexican Petroleum is, and how it deserves the support of oil men and those who have been putting up the money. Before any comment is made careful attention is asked to the article which is as follows:

"When all of the improvements planned and in process of installation are finished, the Mexican Petroleum company will have the most complete producing oil plant in the world; there may be plants that cost more money, but there will be none more modern in character and more varied and complete in detail," declared E. L. Doheny, president of the Mexican Petroleum company, to a representative of Oil, Mining and Finance yesterday.

Mr. Doheny has just returned from a trip in his private car, accompanied by Mrs. Doheny and several friends and stockholders of the Mexican Petroleum company, to the latter's holdings, some 400,000 acres, at Ebano, near Tampico, Mexico. He reports a most delightful trip, "the weather being for the most part unusually enjoyable.

"These improvements include," continued Mr. Doheny, "a standard gauge railroad from Ebano station, passing the company's refinery and extending to the most remote oil wells on the property. A first-class oil-burning switch engine and five cars, three flat and two oil cars, have been ordered and will soon be received. This rolling stock will arrive within thirty days. Nearly all of the grading of the railroad has been done, and about one-third of the trackage laid. The road will be finished within thirty days.

"A water-pipe line of five-inch steel pipe, twenty-two miles in length has been laid. High pressure pumps and boilers, set in cement and brick foundations, pump water from the Tamesi river, which is the source of water supply for the camp. This plant was purchased at a cost of \$75,000 gold. The pipe-line is wholly within the property of the Mexican Petroleum company, and extensive oil exudations are found all along its entire length.

"A number of large, steel tanks

for the storage of oil are being erected. Two of these tanks are thirty feet in height and ninety-five feet in diameter, and will hold 40,000 barrels of oil each. The total tank capacity is about 125,000 barrels. The storage plant will cost about \$40,000 gold. Three steel tanks of 5,000 barrels capacity are already erected and contain 10,000 barrels of oil and distillate produced from the wells.

"A new refinery with six stills and a total capacity of 1,200 barrels of crude oil a day is under construction at a cost of about \$25,000 gold. This refinery will be used in the conversion of our crude product into asphaltum, and we will devote the old refinery to the work of redistillation and particularly to the production of lubricating oil.

"We will have our own machine shop which will render us in any emergency independent of outside assistance. The equipment of this shop will be complete for every purpose for which it has been designed. We are, or soon will be, in a position to do all of our own mechanical work, including the construction of all necessary steel tankage. We have a machine for making rivets used in tanks that has no counterpart on this coast.

"The cooperage under way will have a capacity of 1,000 barrels a day, and we will make every barrel needed right on the spot.

"We have a complete electric plant which furnishes safe illumination and operates electric fans in all of the shops where we have American help employed, so that the employees who are foreign to the climate may work in comfort on the most sultry day.

"Our ice plant furnishes an abundance of ice and ample cold storage facilities.

"When all that has been planned is done we will have an independent little world of our own, and I am safe in repeating that ours will be in all respects the most complete producing oil camp in the world.

"Evidence of the immense oil deposits underlying our holdings is scattered over an area 12 by 30 miles, taking the form of pools of oil, sometimes acres in extent, and streams or exudations of liquid asphaltum. We have two well-defined oil horizons, and there is no experimentation involved in development.

"At present we have eleven productive wells, but they are not all being made to produce because of insufficient tankage. Three wells are being drilled. Drilling operations will be increased and carried on indefinitely. We have now on hand at the camp drilling machinery, tools, casing, etc., to the value of \$100,000 gold. Seven hundred Mexicans and about fifty

Americans are on the pay roll."

Herbert G. Wylie, well known among Southern California oil operators, is superintendent of what might well be termed the model oil camp of the continent, if not of the world. Mr. Wylie is building for himself a home that Mr. Doheny says will be as fine as any in Los Angeles. The edifice is located on an elevation 150 feet above the camp, commanding a view for about twenty-five miles; it will be of compressed brick transported from Monterey, a distance of 380 miles. The house, which will be, of course, the headquarters building of the camp, will have every modern convenience. A large plunge bath will be among the refreshing features.

If this report does not deserve the biggest bun that was ever yanked from the top shelf, no report that has ever been or that ever will be made will deserve it.

The counting of chickens before they are hatched is nothing as compared with it.

Mr. Doheny must have the queerest lot of directors behind him that was ever got together in a row of dummies, and furthermore he must have the most trusting, the most complaisant, the easiest going set of stockholders that were ever willing to have their money expended on any old thing, in the world.

Of course the private car is of no importance. Anyone who knows Ed. Doheny knows he is a

rattling good fellow, and never travelled in anything but a private car all his life. He don't know even what an ordinary Pullman looks like, and never would look natural in anything but his own private palace car. Let the private car business go. That only costs a few thousand a trip, and the stockholders do not care for such small items. Not they.

But how about the other items? A standard gauge railroad would be all right if there was a big lot of traffic over it, and a train load of twenty or thirty cars a day being hauled out of oil, asphalt, or distillates. But as yet there seems to have been no necessity for an expenditure of at least \$50,000 on a railroad. Why not wait until the company had something to transport? On January first the land the company owned up the road had cost it \$21,652.72 and no rolling stock was included and the road was not completed. How much the road and its equipment has cost since then no one knows, and if they do they have not told about it. We don't do things by halves in Mexico.

Then think of expending \$5,000 for a water plant. Most companies would get along somehow with a less expenditure of money for water until they had oil. We don't do it that way in Mexico.

Then \$40,000 on a storage plant

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## Pacific Coast Headquarters

117 North Main Street

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is a pretty good outlay unless there is oil to put in the tanks. In Mexico that system is all right.

Such small items as \$25,000 for a refinery, and as much more for a machine shop, not to speak of a big cooperage plant, electric and light plants are mere bagatelles for a company that has so much oil underground—somewhere. It's all right in Mexico, and the stockholders think or we suppose they think it is all right. They must have been to Mexico, and got the fever.

The company has on hand drilling tools, casing, etc., to the amount of \$100,000. That is surely a pretty good supply, and when the company gets to work in earnest, and gets a good well it will come in handy.

The superintendent's house is as good as any house in Los Angeles. It must be a bird. Built of compressed brick brought from Monterey 380 miles away. Why didn't they go 1,000 miles away so as to add to the freight account? The plunge bath is all right. When the company strikes the right kind of oil and enough of it, the directors and stockholders who are on the spot will get hot with pleasurable excitement and will want a place to cool off in. Their plunge bath will come in handy.

No wonder the company has been levying assessments. Assessment No. 1 only yielded \$162,221.25, and that money didn't last any time at all. The plunge bath cost a lot in itself. So with assessment No. 2, which yielded about as much more. Some of the suckers who put up growled a lot, but they were bloods all right; used to being bled, and rich man Jones pungled because he knew rich man Smith and rich man Brown would pungle too. They all kicked, good and hard, some of them, but they pungled all the same. Pretty soon assessment No. 3 will be levied and then there is going to be music in the air. Another plunge bath will have to be built on the spot. Everyone will get hot, and a wholesale cooling off process will be needed.

The company would be in better shape if the future looked brighter so far as business is concerned. But those who claim to know the exact state of affairs say that the prospect is not and cannot be bright.

There have been a few wells drilled, but those who have seen them say the wells are small producers at best, and that the oil obtained is not a commercial oil, so thick as to be absolutely unfit for fuel, and good only for asphalt purposes. The distillates obtained are small as compared to the proportion of distillates obtained from the asphaltum oil of other fields, and it is the distillates that make

the refining of asphaltum oil profitable.

How any company can expend upward of \$5,000,000 before there is any absolute demonstration the company can produce a product in sufficient quantity and of sufficiently good quality as to make the operations of the company profitable is a question that only those who are connected with the Mexican Petroleum company can answer.

Suppose a company should expend \$5,000,000 on mining and milling machinery before it had been demonstrated that ore was there in quantity and quality; what would be thought of the wisdom of the enterprise? Mr. Doheny's scheme may be all right. It is to be hoped it will turn out so. But at present the success of the enterprise seems very dubious.

Here are a few of the expenditures of the company taken from the balance sheet published in this paper a few weeks since:

A. P. Maginnis.....	\$ 110.00
Treasury Account.....	4,587,625.00
Lands.....	5,057,506.76
Cash Account.....	28,712.02
Miscellaneous Tools and Machinery.....	3,894.52
Stock Account.....	54,870.00
Miscellaneous Expense....	1,891.43
Office Expense.....	305.78
Salary Account.....	17,475.00
Ice Plant.....	1,250.00
Converting and Adjusting Account.....	152,677.93
Pay Roll Account.....	2,480.59
Steel Storage Plants.....	5,167.42
Miscellaneous Expense in Mexico.....	1,128.83
Profit and Loss Account...	236,638.68
Hamler Boiler and Tank Company.....	7,500.00
Addison Lyle.....	100.00
Electric Plant.....	2,059.60
Travelling Expense.....	6,412.90
Pablo Martinez del Rio....	10,000.00
Advertising Account.....	23.50
Interest.....	1,413.58
Yacht Strae Phyllis.....	5,411.94
Attorney's Fees in Mexico.	205.00
Doheny & Canfield, Trustees.....	197.72
Live Stock Account.....	2,950.00
Railroad Spur.....	21,652.72
B. C. Blake.....	23.55
W. W. Carre & Company..	1,000.00
Ella Irene Bradley.....	500.00
H. R. Nickerson.....	5,000.00
Mexican Office Expense...	416.00

Lumber.....	7,843.96
Labor in Mexico.....	5,688.35
	\$10,220,523.62

These figures give lots of ground for thought, and the questions that could be asked and the contracts that could be made are more numerous than would be pleasing to the company.

### PROVEN OIL LANDS.

The Price is Rapidly Advancing and the Demand Increasing.

The writer in an article read before the California Miners' Association in the month of November 1902 predicted the rise in oil lands and the increased price of oil.

Only those on the inside appreciate the hardening tendency that has been quietly going on since that time. Land that could readily be bought for \$100 per acre, even as late as January of this year, has increased to five times that price to-day and is being picked up by those experts who know what they are about.

The California Petroleum Miners' Association, almost every day have persons inquiring for proven territory.

As the trend of the oil belt is more definitely defined in each of the producing districts the speculative tendency or "wild-cattling" is becoming less frequent. It is no longer believed, that because oil is found on one piece of land the whole neighborhood must necessarily be greasy.

Oil is rapidly assuming the form of a regular business with its ramifications stretching out in all directions. New lands are continually being brought in or in the vernacular "being proven."

Oil lands vary in price in California according to district, depth of drilling, amount of oil sand obtained, etc., too numerous to mention. In some of the oil districts a great well, maybe of 500 to 1,000 barrels a day, will come in; these wells to say the least are suspicious. It may mean a great depth of sand, but also (the bad feature) great pitch of sand de-

posit. These wells all simmer down to fifty or even twenty-five barrels before a year's pumping. A well which begins at say 100 or 150 barrels is generally a much safer proposition as far as permanency is concerned. I know of some wells that have delivered regularly 200 barrels a day for the past two years, and seem now, as good as ever, but the oil sand lays very flat and of great depth. Wells of this character are good for several years. There are wells in Ventura county that have been good producers for more than ten years and are still looked upon with favor by their owners.

As an instance of how fast good things are picked up it may be mentioned that a company was incorporated a few weeks ago, and twenty days was offered to stockholders of another very successful company, in which to subscribe for the stock. It was all taken in three days, showing the confidence in the new land and in the management of people who had already a success.

There is no business to-day in California with less speculative claims than a good piece of PROVEN oil land. It costs less to develop, no necessity of advertising and an absolute and immediate market for all the product. The consumption of oil is increasing faster than production and the writer believes that the price of oil at the wells will increase 25 per cent before the end of the present year. The above remarks refer to PROVEN land only.

DR. C. T. DEANE,  
Sec'y Pet. Miners' Asso.

The work of oil development at Sour Lake, Texas, goes bravely on, and each succeeding day sees new derricks added to the field. The center of operations is now in the "Shoestring" district, north and adjoining the Texas company property, where rigs are becoming as thick as leaves, threatening quick exhaustion of the oil veins through the close proximity and number of holes that will be drawing from the same source.

— THE —

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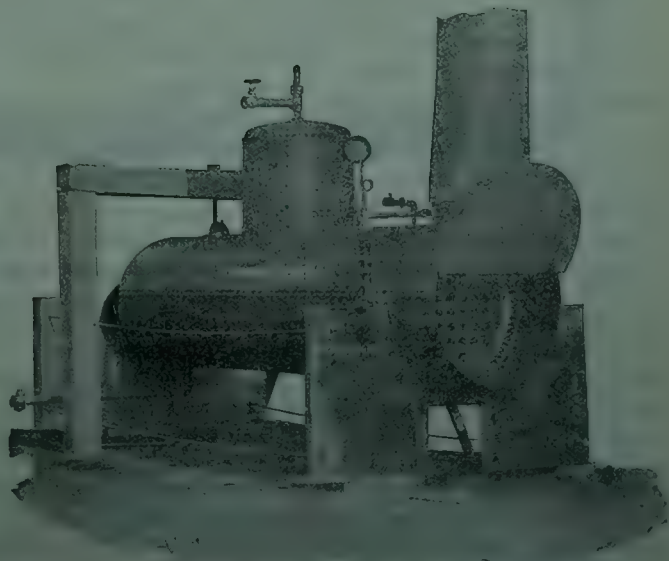
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Dry Steam always assured.  
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Write for Prices

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## WII MAKE BRIQUETTES.

**Th Heavy Oil of Coalinga to Be Used in the Manufacture.**

The manufacture of briquettes promises to be an important industry for Fresno county. The county has the two ingredients—coal and asphaltum. The briquette, if properly made, has many advantages over wood or coal. In the first place, it is cheaper; in the second place there is complete combustion, leaving no refuse; then it is convenient to handle and does not soil the housewife's fingers.

The publication in last week's Republican of a briquette factory to be started in Fresno by Dr. Prather of Seattle, smoked out another briquette proposition that has been under consideration for some time by Fresno capital. In fact, a sample briquette has already been made with the asphaltum and coal screenings, and is now on exhibition in the office of the company in the Farmers' National bank building.

The St. Paul-Fresno Oil company is back of the project. It has two producing wells on section 23, Coalinga, which unlike most of the wells in the Coalinga territory, produce a heavy oil. The directorate of the company is: H. H. Welsh, president; L. T. Chamberlain, vice-president; U. M. Thomas, secretary; J. T. Ingersoll, treasurer; B. H. Evans and George L. Warlow. It is the intention to organize a separate corporation to go into the refinery business and a plant will be erected on the company's property.

It is then proposed to utilize the asphaltum by-product in the making of the Schimper briquette "binder", the formula of which the owner will not part with, but he will establish a plant here for the manufacture of it, it is believed. The owner of the secret is professor Rudolph Schimper of St. Paul, a chemist of note, and a member of the Paris Academy of Sciences. He has examined the asphaltum obtained from the St. Paul-Fresno company's product, and has pronounced it excellent for the making of the briquette "binder." The company has also a report from Professor George B. Frankforter, director of chemistry of the State university at Minneapolis, and he also has a formula for a "binder", said by some to be superior to the Schimper formula. In case Schimper does not start a plant here the Frankforter "binder" will be manufactured upon royalties.

A suitable coal, it is believed, can be obtained right in the Coalinga field. It is not generally known that coal was mined on section 26, right below the St. Paul-Fresno holdings as late as 1896. A railroad track ran from Coalinga to the mines. When oil was discovered on the property,

however, the coal mine was abandoned. The coal was used in Fresno by Fulton G. Berry in the Grand Central, by the gas company and by the Southern Pacific Railroad company. If satisfactory terms cannot be made, however, with the owners of the coal mine, Wellington screenings can be shipped in from San Francisco and a briquette produced that will drive wood and coal out of the market, it is claimed.

## MONTHLY OIL REPORT.

**Production Must Increase to Meet Consumption.**

The winter rains are over and oil operators are preparing to make the most of their time. Although the monthly oil report does not in the aggregate show any very great increased activity, the fact remains that companies that have been following a very conservative policy are now making preparation for active work in the field again. Surplus oil has become a minus quality, and many of the large companies find themselves in the condition where they have to increase production in order to fill contracts.

As compared with the same time one year ago the improvement has been astonishing—or it would be had well-informed business men not discounted the future by holding on to their interests in well established companies. They are now beginning to receive the reward of the optimistic view they then took of the situation. South of the Tehachapi, particularly, says the Los Angeles Herald, the several fields have been oversold, and oil has been and is being brought from outside points to make Los Angeles delivery. And at the present moment it is an open question whether the work now being carried on will suffice even to meet present demands, the increase in consumption is developing so rapidly. The saving to California consumers last year, by changing from coal to oil for fuel, is placed at from \$6,000,000 to \$7,000,000, based on the decrease in the importations of coal. Such striking object lessons are not without their effect, and the demand for oil for fuel goes on apace.

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## The Oil Engine in Mining.

The oil and gas engine has become an essential part of economical mining operations. It has long been contended that there is a very large scope for oil and gas engines in mines. The adaptability of this description of motive power is such that it should be useful in any industry where motive power is required at a cheap rate, and where it is necessary to have as much power near the working face as possible. In fact, a contemporary goes so far as to say that many ore mines would have remained unworked had it not been for the gasoline and similar engines, particularly when the mine has been located in dry or mountainous regions, remote or inaccessible from fuel supplies and water. There are hosts of small properties in the Rocky mountain regions, throughout the West, and elsewhere, whose individual output will not warrant the installation of an expensive power plant, to do the work of hoisting and pumping. Naphtha or gasoline would seem to be an ideal source of power in such cases, as it is concentrated fuel, which is cheap, and easily transported. For prospecting purposes, and sinking trial shafts in new territory, a steam plant would often be out of the question on account of its bulk; the machinery could only be used, profitably, capable of being transported in sections on the backs of pack mules. A two-horse-power gasoline engine can be carried on one burro, and fuel and water for several weeks' work can be transported on another. The saving in wages alone effected by this arrangement over hand or animal power, besides the increased capacity of the working force, should recommend the former method of procedure wherever practicable.

Another point is also worth notice, in many large mines, using

one or more of the various forms of power, occasions frequently arise necessitating power for pumping, haulage or ventilation at isolated points. The temporary nature of the work to be done may limit the outlay for its accomplishment to a small amount. The expense of the installation of long power transmission lines would be prohibitive, provided the loss in energy which would ensue did not rule out the scheme. It is such opportunities as are instances here that should be taken advantage of by oil engine makers.

Portable motive power, if we may so term it, is a great advantage, especially if combined with an efficiency as great as, if not exceeding, steam power.

## New Oil Company.

Nestor Oil company. Principal place of business, San Diego. Capital stock \$50,000; subscribed, \$70. Directors: E. A. Hornbeck, E. Thelen, F. H. Sanborn of National city, T. S. Kellett, S. K. Williamson, George Puterbaugh of San Diego and J. A. Sanborn of Seattle, Wash.

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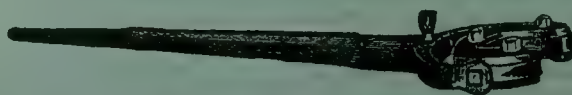
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## REFITTING ENGINES.

Increased Business Makes Increased Work at Railroad Shops.

At present there are a large number of the Southern Pacific company's locomotives in the machine shop and the round house that are being repaired, overhauled and altered and as fast as one is completed and turned out another is ready to take its place.

It is quite an interesting as well as an instructing sight to see the various engines undergoing alterations. Those that require new fire-boxes are almost completely dismantled and practically built over. By the time the dismantling is completed there is very little of the original engine left but the skeleton. After the new fire-box is fitted on it is bricked up and then the different parts of the engine are gone over carefully and all weak spots repaired before being put in place with the result that the locomotive is practically a new one when turned out of the shop.

When a locomotive is changed from a coal burner the same process has to be gone through with and a fire-box adapted to the use of crude oil must be built. The method of bricking the fire-box of an oil-burner is also different from that of the coal burner. It generally takes from six weeks to three months to do this work properly.

When an engine comes in for small repairs or general overhauling, only the outer parts are removed—such as the wheels, trucks, journals, rods, spring and, in some cases, the cab, only the body of the machine remaining intact. The necessary changes or repairs are made within a month from the time it comes in and sometimes as early as ten days in case there is a hurry order attached to it.

Practically all of the engines which are dismantled entirely are built up again as oil burners and in time coal-burning engines will be a thing of the past. With the permanent use of the oil burner comes an evolution in tender-building and the tenders of the future will be semi cylindrical in shape and will have an enormous capacity. There are several now at the West Oakland yards which are attached to ordinary sized engines and have a capacity for 3,300 gallons of oil and 7,300 gallons of water. Compared with this, the immense tenders attached to the big Atlantic type engines have only a capacity for 6,000 gallons of water besides the coal.

## New Refining Company.

Southern Refining company. Principal place of business, Los Angeles. Capital stock, \$150,000, \$500 subscribed. Harrington Brown, Hugh Glassell, Jno. Baciagalupi, M. G. Brown, B. M. Marble of Los Angeles, directors.

## OIL MADE HIM WEALTHY A DESERVED PROMOTION

The Death of Juan B. Careaga Recalls Important Oil Strike.

The death of Juan B. Careaga at San Luis Obispo on April 18th recalls an important event in the oil history of California.

The following regarding the life of the deceased is from the Santa Barbara Independent

"Mr. Careaga, with his brother, Ramon, lived in the Los Alamos country before the "white man" invaded that fertile locality, and for a great many years, in partnership with Daniel Harris, owned the great Los Alamos land grant, containing many thousands of acres of the richest lands in that section of this county. At about fifteen years ago the Harris-Careaga partnership was dissolved, Harris taking the western section and the Careagas the eastern.

"For many years after this dissolution the Careagas made money in the cattle and stock business, but when the dry seasons came on and hard times struck this section of the country they became heavily involved and were about to lose the valuable ranch when about three years ago A. H. McKay, in company with oil experts, took a lease on the property and in return agreed to give the Careagas a tenth royalty of all oils developed on the place. Operations were begun at once and within six months after the lease was signed the greatest oil gusher in Southern California was struck. The Western Union Oil company has now sixteen wells on the property and the Careagas have paid off the heavy indebtedness they had been carrying, and at his death he left an estate valued at several hundred thousand dollars."

Subscribe for the PACIFIC OIL REPORTER.

John Page, of Lima, Will Take Charge of California Pipe-Line.

Mr. John Page, for the past several years assistant general superintendent of the Buckeye Pipe-Line company in Lima, Ohio, has been transferred to the California oil field and will leave Monday for San Francisco, where he will have the general superintendency of the pipe-line work in that field. The promotion is to take effect May 1st.

Mr. Page is one of the most popular officials of the pipe-line company in the Western field, and has followed the business since almost its earliest inception. He entered the employ of one of the pipe-line companies in 1880, but shortly afterwards went with a railroad company, returning to the pipe-line company in 1882. He was stationed at Bradford for a few months more than four years and in December of 1886 came to Lima, where he has since resided. Until about eight years ago he was connected with the engineering department, but was then given the position of assistant general superintendent, and that he has capably fulfilled the duties of that important position is clearly evidenced by the promotion he now received. As a civil engineer he has achieved a reputation second to none and in the work of connecting up developments in the California field he will undoubtedly have an opportunity for the display of considerable executive ability.

A host of friends in Lima and throughout the Western oil fields will regret the removal of Mr. Page from Lima, though congratulating him on his merited advancement.—Oil City Derrick.

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A number of Havre, Mont., people are interested in the Swift Current oil fields. Many thousand shares of stock in a company organized by Samuel Somis, of Swift Current, have been sold and Havre people are taking no little interest in the development of the field.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
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SATURDAY.....MAY 9, 1903

The editor of the PACIFIC OIL REPORTER returned on Monday from Coalinga on an extended trip through the Coalinga oil field.

It was his first visit to this field for nearly two years. To state that this field has made a wonderful advance toward productiveness and prosperity during these years does not half express the real condition of affairs, nor does it give an adequate idea of the wonderful growth of the district.

Coalinga is one of the earliest of the producing oil fields of California. Its oil was noted when the oil from the Kern River field was just beginning to be placed on the market. The oil from the Home Oil company, and from the wells of Chanslor & Canfield, had established their reputation and was in demand at high figures when Kern county oil had hardly been placed in the tanks. Everyone knew the light oil from this field; it was prominently before the eyes of the public.

Of late years the Coalinga field has been overshadowed in the estimation of the oil public by other fields. Kern, McKittrick, Sunset-Midway and now Santa Barbara have in turn held the stage, and the merits and possibilities of the Coalinga field had been forgotten until the recent strikes of the Esperanza, the Penn-Coalinga, the wonderful wells of the California Oil Fields, Limited, the Caribou, the Twenty-Eight, Oil City, Hanford, etc. had succeeded in calling attention to the fact that the Coalinga field was alive, and was producing not only a superior quality of oil but lots of it.

Then in addition to these rich

strikes of oil comes the fact that the Standard Oil company had suddenly taken a great interest in this field, and had determined to erect immense tankage facilities, build pipe-lines all over the field to connect with the Bakersfield pipe-line, and was in fact erecting two groups of tanks.

These and similar facts have recently attracted great attention to the Coalinga field, and at the present time people are beginning to wonder what the future will bring forth and to ask each other if the Coalinga field is not destined to become the most productive and the richest oil field in the State.

The editor went to the field with the photographer of the paper, Mr. J. A. Bried, a gentleman who has no superior in the State in his line. At Ora we met the Coalinga representative of the paper, Mr. Max Shaffrath, who was waiting the arrival of the train with a good pair of horses and a comfortable survey.

It may as well be stated at the start that anyone who visits the field should have a good team for the distances are long and the weather is hot—not warm, but hot. A poor team will soon tire out, and a good one will have all the work it wants.

The aim of the trip was to see the entire field thoroughly if possible in three days, getting facts and photographs all the way.

It is not possible in the limits of this article to describe the trip at any length. It is enough to say that the trip was a revelation as to how an oil field can be developed quietly but effectively in comparatively a short time.

At Ora station are the tanks of Home Oil company, the Coalinga, the Union, the great tanks of the Southern Pacific, with ground graded for more tanks. Here are numerous loading racks, and by themselves are the tanks of the California Oil Fields, Limited.

After the tanks at Ora had been photographed we started for the hills, distant about seven miles. About half way we passed the east side pumping plant of the Coalinga Consolidated Water company, which supplies water to the different groups of wells on the east side of the field. This water while plentiful enough, is so impregnated with mineral ingredients that it is not fit for domestic use, and while it will not hurt a boiler will soon wear out the internal arrangements of a man and place him in a suitable condition for a coroner's inquest. This water has to be condensed before it can be used for domestic purposes, and every plant has a condensing arrangement by which it obtains a supply of drinking water from the engine. The water thus obtained is palatable and healthy, and one can drink quarts of it, as the writer can

testify. At most of the rigs are Spanish ollas which keep the water cool.

From the water company's plant a fine view is offered of almost the entire oil field, there being visible on the east the derricks of the California Oil Fields, Limited, the Twenty-Eight, etc., then westerly the entire succession of groups of wells clear down to the rigs of the Blue Diamond and Caledonian. On the plain apparently from this point loom up the derricks of the M. K. T., the Wabash, and the Union, while in the center on the foot-hills are the wells of the Esperanza, the Pennsylvania and York Coalinga, the Main State, etc. In all at least 100 derricks are plainly visible.

We left Ora at 1:30, but it was quite three o'clock before we reached the foothills where the first wells are located and began photographing. The first group taken was the wells of the Oil City Petroleum and Independence. Then followed in turn the Hanford and Fauna, Twenty-Eight, Stockholders, the California Oil Fields, Limited, the great tank of the Standard Oil company with the ground already graded for another tank.

When it became too dark for further photographing, the camp of the California Oil Fields, Limited was sought, and there our little party was given a cordial and hospitable welcome. This camp is undoubtedly the best camp thus far established in any of the oil fields of the State. It is built on the edge of a divide, and overlooks the valley on the south, while on the north rises the steep slope on which the Standard Oil company is erecting its group of tanks in which will be stored the oil which will be sent through the six-inch pipe-line to the eight-inch pipe-line running from Bakersfield to Point Richmond. The two lines will meet at Mendota, in Fresno county near the Madera county line. The camp is located more than 1,500 feet above the sea level, and it will not be necessary to pump the oil from this field to Mendota, the force of gravity being amply sufficient to send the light oil of this field rapidly through the pipe. The camp itself is built solidly, and every attention is given to the comfort of the employees. The rooms are large, light and airy, and broad verandas and plenty of ventilation make all the quarters comfortable on the hottest days. A cold wind is always blowing across the summit of the divide.

On the following day an early start was made, and from that time for two entire days not a moment was wasted. Views were obtained even of the rigs of the California-Rhode Island, the Connecticut, and the Chicago Limited, all of which are located from five

to eight miles southeast of the California Oil Fields, Limited, at the edge of the foothills as they debouch out toward the plains. It has just been authoritatively stated that the Chicago has struck the first sand at over 2,000 feet. This strike opens up an immense new territory. The oil from the first sand will be a heavy oil, but the light oil will be found below, and this well is in shape to be sent down 3,000 feet if necessary. Drilling is easy.

It is not necessary in this article to follow the party in the remainder of the trip. Sufficient to say that every portion of the great Coalinga oil field was visited and views were obtained which when published in this paper in a short time will demonstrate better than could be done in any other way the progress which has thus far been made in the field, and the opportunities that are presented for future and great development.

Views of the formations were obtained which show to the veriest tyro in oil geology how great is this field and how the oil territory has but begun to be exploited.

This field is destined to become noted. Its future cannot now be predicted. Some say it will have no rival in the world. Certainly it will be a heavy producer, and will produce a very valuable oil. There are to-day wells in this field that are able to yield 800 barrels of 28-gravity oil daily, and there are others that are yielding easily the same amount of 22 gravity oil. The sand is very deep as well as rich, and the supply of oil is proportionately great. Up to the present time the only trouble with the field has been lack of transportation for the oil. This difficulty will soon be remedied. The Standard's pipe line will be finished to the upper tanks by next week at latest, and the pipe line to the lower fields, to the wells of the Esperanza and Penn-Coalinga and their neighbors, will be completed in a week or two more. The lower tanks are being built as fast as a large force of men can put them together, and no time is being wasted to put this field in line with the biggest producing field in the State. Before six months go by oil men will see a wonderful change in the output of this field, and where \$1 is being received now for oil there will be \$500. It is not to be wondered that the price of stocks in companies operating in this field has advanced very rapidly of late. The advance has only begun. Those who have invested in large blocks at the present low prices will reap rich profits. There are men to-day practically poor, so far as any income is concerned, who in a few years will be ranked

(Continued on page Nine.)



## THE NEW DIESEL ENGINE.

**Operated By the Combustion of Liquid Fuel Pumped Directly Into the Cylinder.**

**A New Engine That Burns Crude Oil, That Gives Much Greater Efficiency Than the Steam Plant, and Is as Reliable as any Steam Engine.**

Producers of crude oil will be gratified to learn that the use of crude oil is increasing very rapidly on account of the fact that a number of inventors have been trying for some time to invent an engine that will use the crude instead of gasoline for fuel.

Of the inventions recently patented none is more satisfactory than the Diesel engine now being built on a large and increasing scale for the American Diesel Engine company of New York, at the Providence works of the British Manufacturing company. This engine has amply demonstrated its success and its adaptability to any service where steam engines have been used.

The low efficiency of the best steam motive power plants (about 10 per cent of the full amount of energy in the fuel converted into useful work) has long been the basis of prophesy and expectation that some more economical system of motive power would be discovered. The recent development of gas engines and other forms of internal-combustion-type motors is evidence of the great efforts being made in this direction. So far as efficiency is concerned important advance over the steam engine has been realized by this type, but heretofore they have all developed inherent practical drawbacks, which have not permitted them to become a serious competitor of the steam plant. They have, however, demonstrated that this competitor must be of the internal combustion type.

The Diesel engine is in the field as a stalwart competitor of the steam plant. Its unqualified success and extensive use in Europe, together with its considerable demonstration in this country, establish its right to this position. Not in units of thousands of horsepower, as yet, but in hundreds, with sizes increasing and no indication of any limit so far as size is concerned. It success rests upon two basic facts: First, it gives an efficiency of from 25 per cent to 30 per cent as compared with 10 per cent of the steam plant; and, second, it is as simple and reliable as any steam engine.

The Diesel engine is a self-contained apparatus, operating by the combustion of liquid fuel pumped directly into the cylinder.

There is no boiler or any other of the appliances necessary to a steam plant, but there is required a small air pump and its appurtenances. No unusual skill is necessary to operate and care for these engines. Any mechanic of ordinary intelligence can in a short time become fully competent. The usual care may be entrusted to a low-priced attendant, provided a skilled man is available for occasional inspection and care in an emergency. There is nothing like the responsibility involved in the use of a steam boiler.

The fuel used may be crude petroleum, "fuel oil" or kerosene, the efficiency being substantially the same with either. The crude oil, on account of its low cost, will be used in districts where it can be readily obtained. Doubtless the supply will become generally available as the demand increases. Fuel oil can be obtained everywhere. Kerosene, on account of the cost, would only be used in an emergency. The oil is forced into the engine cylinder by a small pump, which is under control of the governor, the regulation being effected by varying the amount of oil supplied by the pump. This method of regulation is more effective than that used on steam engines, therefore the Diesel engine readily meets all requirements in this line.

The fuel-cost saving of Diesel engines over steam engines, will, of course, depend upon the relative cost of oil and coal in a given locality, and also upon the type and size of steam engine. In New England this may be approximately stated as from 25 per cent to 75 per cent. The fixed charges will always be materially less with the Diesel than with the steam plant. The efficiency of the former, unlike the latter, is practically the same in small as in large powers. An engine of 25 horse-power is about as efficient as one of 250 horse-power. Again, the efficiency is but little affected by change from heavy to light load or vice versa; that is, the economical range is over a large portion of the entire capacity instead of at one point only, as in the steam engine.

The essential principle upon which the Diesel engine operates is that it is impossible to compress air without increasing the tem-

perature of the air under compression; and that if oil is introduced into air at a certain temperature or above it, it must ignite and consequently burn. The degree of compression used in the Diesel process heats the air to about 800 degrees Fahrenheit, a temperature at which crude oil burns completely without residue in the presence of a sufficient amount of air. The Diesel engine does not operate by an explosion, as is the case with the ordinary gas or internal combustion engine of other types. There is no mixture of combustible elements in the cylinder excepting at the moment when the combustion is intended to begin. There is no explosion and there are no ignition devices of any description, the machine being a simple caloric or heat engine, using air as a medium of expansion instead of steam. Steam has received heat from the fuel at the boiler. Air in the Diesel process receives heat direct from the combustion of oil fuel mixed with the air in the working cylinder.

The engine operates on the Otto cycle or four stroke principle, the first stroke filling the cylinder full of air at atmospheric density. The second stroke compresses the air to about 35 atmospheres. At the point of highest compression, the air is practically in an incandescent condition. Just at the reversing point in the stroke of the piston, a certain quantity of oil is sprayed through an atomizer in the shape of mist, but not vapor. This oil is immediately ignited and burns slowly through a limited portion of the stroke. The expansion of the air and gases completes the third or working stroke, and the fourth stroke ejects the gaseous products of combustion, clearing the cylinder for a repetition of the cycle.

Lubricating oil has been struck at a shallow depth at Arnold's Mound, near West Columbia, in Brazoria county, Texas. The well is now yielding a flow of 100 barrels a day, the quality of the oil being as good as that at Sour Lake and better than the Beaumont grade.

Subscribe for the PACIFIC OIL REPORTER.

### A Trip to Coalinga.

(Continued from page Eight.)

among the very wealthy, and their wealth will be due solely to the fact that they were fortunate enough in the early days of the Coalinga oil field to secure for themselves large blocks of stock in companies that became some of the largest producers of valuable crude oil in the State of California.

The last night of the trip was passed at the property of the Caledonian, the company that is at present the last company in the field toward the southwest. This company has struck a vast deposit of oil, and has a great well at only a slight depth of less than 700 feet. The drill has only penetrated the first sand and the oil now flowing from the well is of a low gravity. But its presence has been demonstrated, and the lighter oil lies below and will be found in the second well, which will be drilled at once.

A full account of this field and a careful and correct description of every company operating, together with magnificent half-tone representations of the photographs taken on this trip of every well in the field, will be published in a special Coalinga edition of the PACIFIC OIL REPORTER now being prepared, and which will be issued early in June.

### Pacific States Mining and Investment Co.

This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work.

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Reporter**

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These volumes are strongly and artistically bound, and contain the only full and correct information as to the development of the oil industry on the Pacific coast.

Editorial and Publishing Office  
318 Pine Street  
San Francisco, - Cal.



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

Roadmaster McDonald is oiling the Fench road, from East avenue to its junction with the Stockton road, and Roadmaster Young of Altamont will oil several miles of road in the vicinity of Altamont next week.

The first application of crude petroleum along the Southern Pacific tracks on Seventh street, from the Oakland mole to Fruitvale, has been completed, and the results, it is said, reach all expectations. The oil has been absorbed by the ground and has spread, making a solid covering, and has dried out enough so as not to be objectionable. Of course one application is not sufficient to attain the desired end and another sprinkling of oil will be put on very shortly, and if it is thought necessary a third one will be put on, the idea being to have the roadbed thoroughly saturated with the crude petroleum, so that it will be dustless and in time will be very much the same as asphaltum pavement.

### ALASKA.

The river steamers on the lower Yukon will probably burn oil for fuel during the coming summer. Heretofore they have used wood for fuel, and each of the steamer lines have been at great expense maintaining wood-cutting gangs at convenient points along the river to supply the steamers. Large storage tanks for the oil are to be erected at St. Michael, and it will be made the supply point for the vessels. It is now proposed to send the steamer Rosecrans, that is now being fitted with oil tanks at the Union Iron works, with the first cargo of oil to the storage depot at St. Michael. It is expected that the steamer will be ready to start for the North in June, and it is possible she will make two trips during the summer.

### COALINGA.

COALINGA, Cal., May 4, 1903.

Work has been indefinitely suspended on the well of the Union Oil company on section 24.

No. 7, of the Twenty-eight Oil company, will be ready to spud in the end of this week.

The Caledonian Oil company will begin rigging up for its No. 2 well this week. The company expects to go down deep enough to strike the second sand. The work for drilling will be let out by contract.

Mr. J. F. Archibald of New York, Messrs. J. Worthington and J. C. Mac-hale of Pittsburg, Pa., all interested in the Standard Oil company, were in the field last week inspecting the work of the Pacific Coast Oil company.

The Wabash company began work last week by pulling out the string of 5½-inch casing, and it will continue the hole down with 8-inch drive pipe to a depth that will enable the company to proceed to the second sand somewhere in the neighborhood of 1,500 feet.

Mr. Frank R. Cleary has accepted the superintendency of the Caribou and Sauer Dough Oil companies, Mr. Bradley having resigned. Mr. Cleary has been associated with his father in the management of the Confidence and New San Francisco Crude Oil companies for a long time, and goes to his new work well equipped to render efficient service.

The California Oil Fields, Limited, brought in another good producing well by the completion of its No. 11. This company has now fourteen producing

wells, with some of its wells bringing in as much as 800 barrels per day. It started work on its No. 12 last week, and will begin rigging No. 13 this week. The wells are located on sections 27 and 21.

A gang of men are at work laying the 4-inch pipe line from section 27 to the Pacific Coast Oil company's tanks on section 21. The pipe for the main line has all been hauled out and the men are at work finishing its laying. The entire pipe line will be completed the coming week. The company's tank on section 6 will be nearly finished by the end of next week.

Mr. W. B. Winn, proprietor of the PACIFIC OIL REPORTER, and Mr. J. A. Bried, his photographer, spent three days in the field. Every rig, numerous general views of companies, the tanks and water plants, with a panoramic view of the entire field, were taken. All the photographs will be reproduced and published in the "Coalinga Special," which will appear about the middle of next month.

The first cemented reservoir for holding oil is being put in by the Commercial Oil company on section 31. The reservoir is 8½ feet deep, 70 feet long by 24 wide, and is estimated to hold between 7,000 and 8,000 barrels. The sides of the reservoir are covered with one or two inches and the bottom with three or four inches of cement. Should this prove successful, it will afford a cheaper way for storing oil.

A gentleman named Howell was at Hanford from Coalinga this week endeavoring to secure six four-horse scraper teams to work building the approaches to the big tanks that are being completed there by the P. C. O. Co. He offered \$6 a day for man and four horses, the company to furnish the scraper. Teams are very scarce for such work, there being a demand for them building levee works in the lake region and elsewhere.

The grading for the Southern Pacific tanks has been finished, and the first 55,000 barrel tank is nearing completion. Work on the second tank will begin right away. In regard to a pipe line extending from the field to these tanks, a distance of from five to six miles, rumors have been current that the railroad company is negotiating for the purchase of the West Side pipe line. Nothing definite has been done, however, to make a positive statement in this matter.

L. C. Whitley has been awarded the contract for the building of the National Supply company's storehouse, which is located a few hundred feet east of R. H. Herron Co.'s plant. Work on the building was begun last week, and in all probability will be completed within two weeks. The company had an option on a lot next to May's store, where it intended to build its store, but as this option became void May 1st it has engaged temporary quarters in the Coalinga Oil company's building opposite the street from the depot.

Mr. D. S. Fish, superintendent of the Esperanza Oil company, has resigned his position, to take effect May 1st, and he has been succeeded by Mr. R. J. King of Hanford, who took charge of the work on the same date. Mr. King has had many years of experience in the oil industry, both in this field and others in the State. For some years he was the field manager of the El Capitan Oil company in this field. The company is

contemplating putting down several wells in the immediate future, their No. 3 being already rigged up.

Owing to a lack of cars, most of the wells pumping into the West Side pipe line were compelled to shut down the greater part of last week for a lack of storage facilities. The inadequate shipping facilities have constantly dwarfed the development work in this field. But with the Standard line almost ready to ship oil and the additional storage tanks of the railroad company, all obstacles in the way for the disposal of the oil are obviated, and greater activities than the field has ever experienced are manifesting themselves by the number of new wells that are being drilled and others planned for.

### GLENN.

There is a great flutter of excitement just now out at the well of the Washington-California Oil company on the Nye place at Athena. The excitement is not to be wondered at, for there is now every indication, and of the pronounced kind, that the drill has finally come to that strata, and the baler has brought up blue sand and gaseous liquids which show conclusively that the plucky workers are about to bring forth a flow of oil. On Thursday the drill, to the astonishment of the drillers, commenced boring very rapidly and showed that a new formation had been struck. It was found that the gray sand stratum had been gone through by the drill and the blue sand—which is the "color" encouraging to the driller—had been reached. When the baler was sent down, a bucket of gaseous fluid was brought up, and when a flame was touched to it blazed up very startlingly—in fact, there was quite a display of fireworks from the mouth of the well when a torch was applied. This is surely an encouraging piece of news, not only to stockholders in the Washington-California company, but to this entire section of country.—Williams Journal.

### HALF MOON BAY.

The Fountain is down a little over 800 feet and work is going on as rapidly as possible.

The Pilarcitos will resume work as soon as they receive their fuel oil, which will be sometime the first of the coming week.

The Tesla has been delayed on account of the non-arrival of their casing, but as soon as it is on the ground they will begin drilling again. The well is down 775 feet.

The High Gravity Oil company has doubled their force on both night and day shifts and the owners are jubilant over the bright prospects. The property is destined to become one of the best in this section.

The Oil Refinery will start up next week with 7,000 gallons of oil. Charles Knapp finished unloading a car of oil at San Mateo Wednesday, which is being hauled as fast as possible to the refinery. He has also made arrangements with Mr. Guiberson of the Purissima wells for two carloads per month.

### KERN

From all the Kern county fields last month the total shipments exceeded 4,200 cars.

The Fulton, in Sunset, are down 550 feet on their first well, and have reached the first sand.

The West Shore Oil company has a fine producer in its new well, No. 8. It has already been given a test of eight days on the beam and is making a daily average of at least 350 barrels.

The Gilt Edge has abandoned its search for oil on the plains to the eastward of the proven bounds at Sunset. The drill was sent down to a depth of nearly 1,600 feet, but the indications at that level were not such as to warrant the continuation of work.

The California Combined Oil company have managed to dispense with services of Director Abbott, and President Edson is now secretary. Director Z. N. Goldsby is now president and manager, and is now in the field. He says the first well is troubled with water but that this difficulty is now overcome, or will be. There is money in the treasury for another well, and all debts are paid.

The annual meeting of the stockholders of the Bakersfield Oil and Stock Exchange will be held on Wednesday, May 13th, for the purpose of electing directors for the ensuing year and transacting any other business that may come up for consideration. The meeting will be held at the Oil Exchange building and notifications are now being sent to all members of the meeting. The present board of directors is as follows: John A. Bunting, president; H. A. Blodgett vice-president; Solomon Jewett, treasurer; F. S. Rice, secretary, and C. J. Berry.

In the case of Mrs. M. H. Murray vs. the Spencer Oil company, which was tried last week, the plaintiff having sued for \$960 for labor and \$278 for casing, the



We are organizing a gold mining company that we believe is one of the best propositions on the Coast. Small capitalization, 100 men with \$100 each to make a working fund that will easily carry the company to a dividend paying basis in a few months. Ground floor chance. About half already taken. Prefer men who put up only \$100 each, yet larger subscriptions will be received. When making inquiry send 10 per cent of your subscription, as this will go soon. If after investigation you do not want to join this new company as one of its charter members, your 10 per cent remittance will be returned in full.

A MINE, not a PROSPECT. One tunnel of more than 100 feet, with cross-cuts each way with small shafts at bottom, shows ledge widened from 14 to 30 inches; many different assays show average of \$194.32 per ton gold, small per cent silver. Second tunnel, 100 feet lower, will strike same ledge that will probably be four feet wide; also cut other ledges that show on surface.

Machinery, two-stamp mill, paid for, now being put in. 100 tons ore on dump. Mine developed so far by poor men. We will finance the company.

We believe this is an unusual chance. A fortune in it. Subject to investigation. If not satisfactory withdraw your money.

Mention this paper.



defendants filed answer and set up a counter claim for \$9,000 for damage caused by the plaintiff quitting work without authority and pulling up forty-five joints of casing, leaving three joints at the bottom, after which the well collapsed, ruining it, the court decided in favor of the defendant on the complaint and found that the defendant should recover on the counter claim, the amount to be fixed by the court after further consideration of the evidence.

The Associated still continues its development work, and is drilling wells, although the company already has an over-production, this in spite of the fact that the consumption of oil is steadily increasing. The company is hastening the work on its immense storage reservoirs, the excavation of the earth at the Kern River reservoir being about completed, and that at McKittrick will be finished in two weeks. In this field the Shamrock well alone produced 39,000 barrels last month. The Associated reports consumption steadily increasing, and is making only short term contracts for one year at 70 cents in San Francisco.

President E. Aigiltinger of the Monarch Oil company and Mr. Ayers, a stockholder in the same corporation, paid a visit to the company's camp at Sunset last Sunday, says the Echo. The matter of transporting the oil to the terminus of the railroad—a distance of one and one-half or two miles—is the question receiving the most attention from the operators in that portion of the fields. The Monarch people have planned considerable new development work, but until the railroad is extended or a pipe-line constructed they will be in no better position to handle their property at a profit. Purchasers of oil are anxious to close contracts for the product of the wells, but until arrangements are completed for the delivery of oil at the shipping point it is not probable that very many term contracts will be made. Mr. Aigiltinger says his company will, if necessary, provide its own facilities for reaching the terminus of the road and will have a line ready by the time it is prepared to make regular shipments.

In the Sunset field there is every evidence that by the close of the year this field will be shipping oil at the rate of three or four thousand barrels a day. It is an open secret that as soon as the Fulton company gets down half a dozen or more big wells the Standard Oil company will have a pipe-line running through the field, and that the same company will have plenty of tankage in the field to store not only the Fulton's oil but also that of any company which chooses to sell its oil to the Standard. That will mean at least two pipe-lines in the field, as in a very short time the California Consolidated Oil Fields company will have its pipe-line and tankage completed, and will be in a position to market large quantities of oil. When the Midland-Pacific gets its road completed the Sunset-Midway field will have as good if not better transportation facilities than any field in the State. This is good news to the large companies that are able to produce oil in quantity such as the Monarch, Fulton, Maricopa, Federal Crude, Obispo and the California Fortune, which has more oil in storage than any other company in the field.

MONTEREY.

The Combined Oil Land company has started drilling on their first well near San Lucas. The well is down about 100 feet.

SANTA BARBARA.

The gas flow at the Lompoc oil well is daily increasing and is considered a sure sign of nearing the oil strata. The well is down 1,800 feet and everything is working finely.

It is said, and by those who claim to

know, that the Alcatraz Asphalt company sold out to the oil trust for five million dollars. This is quite a margin over the million and a quarter dollars said to have been expended in land purchases and the refinery works and pipe line at Alcatraz.

There is scarcely a day passes that substantial evidence of great activity in oil development on the part of the Union Oil company is not made manifest by

out on the options it has been securing for the past year, is making no more bids for territory so far as is known at this time, which is having a depressing effect on prices asked for contiguous lands, which are presumably as good oil territory as much held by the Union company. There will probably be a lull in oil excitement until oil is secured in the wells now projected, which, it as successful as the first well put down by

secured interests also in that section, and are in some way connected with the Crocker-Woolworth bank. These are organizations backed by millions and cannot fail to prove beneficial to this section if oil is reached, as 'tis hoped it will be at no distant day.

The Union Oil company has closed its options on the Burton, Dutard and California bank interests in the Santa Rita, Purissima and Jesus Maria ranches, which, with other contiguous lands recently bought, aggregate nearly one hundred thousand acres, and took possession and control of same on May 1st. The company has engaged the services of Attorney Sheridan to attend to and look after its interests and business connected with this vast property, and we know of no one better qualified to assume so arduous a responsibility. If oil is secured the present year, as the company has hopes of doing, 1904 may find all their lands offered for sale and settlement in homestead tracts, with oil rights reserved. The hope of this section lies in the getting of oil, for with it shall come population and the permanent peopling of this vast territory. —Lompoc Record.

SARGENTS.

A pipe line has been surveyed from the Watsonville Oil company's wells to Sargents station. A storage tank will be placed on the hill in front of the depot, so that cars may be loaded from a side-track at the station.

The Watsonville Oil company pumped 100 barrels of oil Monday morning without any change in the showing in the well. The company is very much pleased with the excellent showing. Drilling at the new well has commenced. —Pajaronian.

The Gilroy Gazette is authority for the statement that the Watsonville Oil company has refused an offer of \$600,000 for its property at Sargents. The company has decided to drill four more wells, and are now preparing for a survey down the gulch for a pipe line to the railroad.

WYOMING.

The Oil Well Supply company will have a big freight bill to pay in a few days. The freight on the supplies they are shipping to Spring Valley will cost \$13,000.

The Crane company unloaded a carload of sucker roads last week. These supplies are not kept in stock until there is almost a certainty that they will be needed to pump the wells.

J. J. Hardin, manager of the Jager Oil company, is expected in Evanston next week. His company has just ordered another rig for the same locality in which they are now drilling.

The Evanston Lumber company has just shipped five carloads of lumber to the Atlantic & Pacific Oil company at Spring Valley. This enterprising concern will place ten more rigs in the field this summer, five of which are now under way.

The average man should not hesitate to invest a few hundred dollars in the oil fields of Uinta county, Wyoming. His investment of a hundred dollars or so may net him a fortune in the course of a few months. It is not like putting up a few thousands on corn or wheat and then waiting for the crash. Money invested in Uinta county oil lands is the safest speculation of the day. Drilling rigs are going up in all parts of the field and before six months your claim may join a flowing well.

The oil in the Bakersfield pipe-line is now being sent through the third section between Corcoran and Lethent.

The standard tank steamer Asuncion made her first trip this week, taking 21,000 barrels of refining oil from Redondo to Point Richmond.

Oil Consumption in California by Years.

Oil is being consumed from the California wells at the present time at the rate of nearly 18,000,000 barrels a year. When we consider the consumption of oil from this State during the last few years the increase in growth is marvellous. In 1900 the consumption was only 8,742,500 barrels; by the close of 1903, if the present consumption increases as it has in the last few months, the total consumption will exceed 20,000,000 barrels. By the close of 1904 the consumption will exceed 30,000,000 barrels.

Oil from the different fields was being consumed May 1st at the following yearly rates:

	BARRELS
Coalinga .....	1,800,000
Santa Maria .....	160,000
Kern County fields .....	12,000,000
Summerland .....	94,000
Newhall, Santa Paula and Ventura .....	600,000
Los Angeles .....	1,100,000
Whittier .....	550,000
Fullerton and Brea Canyon .....	1,500,000
Puente .....	126,900
Total present rate of consumption .....	17,930,900

The following table shows the consumption by years:

	BARRELS
Previous to 1876 (estimated) .....	175,000
1876 .....	12,000
1877 .....	13,000
1878 .....	15,227
1879 .....	19,858
1880 .....	40,552
1881 .....	99,862
1882 .....	128,636
1883 .....	142,857
1884 .....	262,000
1885 .....	325,000
1886 .....	377,115
1887 .....	678,572
1888 .....	690,333
1889 .....	303,220
1890 .....	307,360
1891 .....	323,600
1892 .....	385,049
1893 .....	470,179
1894 .....	705,969
1895 .....	1,208,482
1896 .....	1,252,777
1897 .....	1,903,411
1898 .....	2,257,207
1899 .....	2,292,123
1900 .....	4,329,950
1901 .....	8,742,500
1902 .....	13,692,514
Total .....	41,604,343

the bringing in of material and machinery for well boring purposes. During the present week lumber for two more derricks arrived, making in all six the company will soon have in operation, with others to follow as fast as material, machinery, and men can be had. There is no longer any doubt but that the vast territory now under control of the Union company will be thoroughly exploited for oil.

The Union Oil company, having closed

that company, will stimulate great activity over an extensive territory not now believed very valuable for oil.

The Crocker-Woolworth bank of San Francisco, owning the Alcatraz works and pipe line, now pumping oil from the Western Union oil wells, have secured oil lands in the Santa Rita region and have the material and machinery to commence work on hand, and will be boring inside of thirty days. The Pacific Oil Transportation company have



## NEW OIL LANDS.

### Encouraging Prospects for Marvelous Oil Developments.

Reference was made in these columns some time ago to the Kern county oil fields, and to the territory being opened in Southern California by the Midland-Pacific railway. Information from that region still continues to speak in very encouraging terms; and also reports an extension of the land in which oil is believed to exist. The region extending from Sunset to Port Harford on the Pacific, in the territory which will be traversed by the Midland-Pacific railroad, the distance being a little over 100 miles. Not only in Kern county, where abundance of oil is known to exist, and which the railroad company desired to connect with Port Harford, but nearer to the Pacific coast, along about fifty miles of the line of railroad, promising indications of oil have been discovered. Slate, and blue clay, and sandstone, supposed to indicate oil deposits, are observed to crop out. It is not improbable that oil will be discovered in other localities.

Traveling down the valley from the Emerson ranch, past the Stubblefield ranch and down to the Cuyama ranch house, and from there about four miles further on, a point is reached where the Midland-Pacific railroad operations are going on. The line is being

carried on across the valley where the ground is as level as a floor. The building of the road is, therefore, easy work. In going up the canyon, after crossing the mountain into the Carisa valley, the territory is passed through which it is predicted will develop into a great oil field. Oil has been found at widely separated localities at depths varying from 187 to 264 feet, and possessing gravity as high as 22° to 28°. Carisa and Cuyama valleys, and a large territory which has been shut off from the rest of the world for lack of transportation facilities, will, if present indications prove to be reliable, develop within a few years into a rich and extensive oil producing section.

These facts and indications are interesting, not only in themselves, but even more so as pointing to the inexhaustible abundance with which nature has provided for all human wants. We hear occasionally of oil fields being exhausted, and next day of other fields being discovered. It is with respect to coal. A few years ago England was, to some extent, alarmed at the predicted exhaustion of her coal fields some time within a century or so. Since then, sometimes in new districts and sometimes at greater depths, more coal has been discovered than was at one time known to exist in all England. We may assume that it is not all discovered

yet. And England is but a small farm compared with this immense continent. There can be no reasonable doubt that we possess in this country more oil and more coal than we can raise and consume during the next thousand years. The consumption of coal and oil will increase; the consumption of other natural products will increase; the necessities of society will increase; but they will never increase fast enough to exhaust the bounties of nature.

With what astonishment, and probably with what contempt, will some antiquary a thousand years from now dig out of the dusty records of some library the amazing fact that in the beginning of the 20th century the American nation contrived by stupendous blundering to manufacture a coal famine! For it is our blundering, and not the niggardliness of nature, that produced the coal famine, and that produces all the voluntary poverty which leans to suicide and crime. Men are not poor because nature has not provided for all. They are poor because they are shut off from nature by our foolish laws. There was plenty of coal if labor and capital had been free to dig it for themselves on payment of a proper royalty into the public exchequer. But we have given absolute control of the coal to two or three men, who meet every few months in New York to decide how much

people shall have and how much they shall pay for it; and we go on dreaming that we live in a free country. Just as there is enough sunshine and fresh air for every man, woman and child in this nation, so there is enough land, enough wheat and corn, enough oil and coal, enough food and clothing, enough of everything that we require. If our legislators could sell the sunshine and the fresh air they would do so. Men with a "pull" would crowd the lobbies to get a monopoly. But they can sell the earth, and, therefore, it is sold.

We sell the earth and all the wealth which it contains, not to the highest bidder for public use, but to men who are rich enough to hold it out of use for speculative purposes, to restrict output and enhance prices. If these men, instead of being taxed on prairie value, or farm value, were taxed a just and fair annual rent or royalty for every acre they held, whether sold or not, there would be some approach to that natural equality of opportunity which unquestionably belongs to all the citizens of the nation. Under some such a system the oil of California, and the coal of Pennsylvania, would be more profitable to capital and labor than they are now, and would enrich the entire nation instead of building up enormous fortunes for a few monopolies.

SAMUEL BRAZIER.

## INVESTIGATION MEANS INVESTMENT

By you in the

# Elk Horn Consolidated Oil Co.

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

## 30 cents A SHARE

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

## 30 cents A SHARE

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

## ELK HORN CONSOLIDATED OIL COMPANY

470-471-472 Parrott Building

SAN FRANCISCO, CAL.



## THE ROTARY MUST GO.

**This Process of Drilling Has Greatly Damaged the Wells at Beaumont.**

**By Its Use Great Quantities of Water are Forced Into the Rock and the Oil is Driven Back.**

Notwithstanding the fact that nearly all the wells in the Beaumont oil fields were sunk with the rotary drill, the oil producers are now up in arms against this method of drilling. An oil well contractor by the name of Strubling has been restrained by an order of the court from drilling a well on Spindle Top by what is called the "rotary process." It is generally believed that this method of drilling has worked incalculable damage to the wells and is responsible for the disappearance of much of the oil from Spindle Top. By its use great quantities of water are forced into the rock, and the oil is driven from its original abiding place. The question has been agitated for some time and an effort was made several months ago to induce the oil well contractors to abandon the rotary process. The case against Strubling is the first attempt to invoke the power of the law to compel the disuse of the rotary, and the restraining injunction will be argued in the courts the pres-

ent week. It has already attracted a great deal of interest and its outcome is eagerly awaited by drillers, contractors and oil operators.

The plaintiffs in the test case against Strubling include nearly all the companies and owners of oil leases on Spindle Top. The petition to the court states that the plaintiffs are engaged in the business of drilling for, producing, selling and marketing petroleum oil. That since the discovery of oil on Spindle Top heights in January, 1901, there have been between 400 and 500 wells drilled. That there are two stratas of oil-bearing sand; that a great quantity of oil was found at a depth of about 800 feet underlying a cap rock of about 40 feet in thickness. That underlying this cap rock is a porous strata of rock honeycombed with oil. That from this porous strata it is estimated that 15,000,000 barrels have been extracted, and that the supply of oil in this strata is now practically exhausted. It is further shown that beyond this formation of porous

rock is a formation of limestone about 40 feet in depth, below which is a rich oil-bearing sand.

The rotary process of drilling is a very rapid one, especially in territory where the geological formations consist largely of sedimentary deposits. In Texas and the Southwestern States it has proved highly successful, but its disadvantages outclass all its good qualities, as the Spindle Top producers have apparently learned by bitter experience. The process consists in rotating the pipe which will form the casing of the well, by means of machinery, and at the same time pumping large quantities of water into the hole under high pressure. The action of the water loosens the soil at the bottom of the well, and enables the casing to be forced down very rapidly. It also drives away the soil as fast as loosened and washes it up through the interior of the casing. The water has proved highly deleterious to the oil-producing formations, inasmuch as its pressure on the underlying strata tends to hold back the oil or drive it away from the localities in which it was found. Some rocks have been found so porous that a large amount of the water forced down the hole disappeared entirely by being retained in the underlying formation. It is also claimed that with the rotary process rocks containing unmistakable evidences of oil in large quantities can be drilled through without the oil making its presence known to the operators. With the standard rig process very little water is used, comparatively speaking, and it is frequently balled out. This method enables the rock formations to

be thoroughly examined and studied, and no possible oil-bearing "sand" escapes the vigilant eye of the driller.

The experience of the average Spindle Top producers, as furthermore presented in their petition, is that the greater portion of the wells which originally produced oil from a depth of 800 feet, are now non-productive. These comparatively shallow wells extend beyond the first cap rock into the porous formation that was originally rich in oil, but not below the limestone rock. In drilling below the original depth of 800 feet, through the limestone, the effect has been to fill all the porous formation with water, which percolates through the wells into the lower bearing strata and being of a higher specific gravity drives out the oil from around the said wells and renders them useless and non-productive. It is further shown that whereas the rotary process does no injury in boring through the first cap rock to a depth of 800 feet, it is causing irreparable injury to the property of the plaintiffs in being extended through the limestone formation. The producers furthermore acknowledge in their petition against Strubling that the standard rig process is quite as effective as the other and its employment works no injury to their oil properties. This sounds somewhat strange, coming from men who a few years ago derided the standard method of drilling and claimed the rotary process was the only one that could be used with success in Texas. Nevertheless the operator is right and the rotary will have to go.

## 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

### Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

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of land that produces untold quantities of high grade asphalt near Sargents Station.

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AGENTS WANTED In All Large Cities for the Sale of Our All Refined Asphaltum



## In Alabama.

The New York-Alabama Oil company has drilled an experimental well near Huntsville, Ala., and at a depth of 100 feet found the first sand showing oil, but the drillers also encountered water heavily impregnated with sulphur. There is now, apparently, no question but that good results will be attained and the drillers believe Alabama will prove an important oil producing State. The company proposes to drill five wells.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, May 6th:

APOLLO.			
500 at	38.		\$ 190 00
CARIBOU.			
800 at	82 1/2		660 00
100 at	85.		85 00
CLAIRMONT.			
1,000 at	35.		350 00
FOUR.			
1,000 at	68.		680 00
2,000 at	69.		1,380 00
300 at	70.		210 00
HOME OIL.			
200 at	2 50.		506 00
1,100 at	2 55.		2,805 00
400 at	2 70.		1,080 00
INDEPENDENCE.			
12,100 at	13.		1,573 00
700 at	14.		98 00
2,000 at	14 (B 10).		280 00
150 at	15.		22,50 40
5,000 at	16 (B 30).		800 00
25,917 at	16.		4,146 72
6,000 at	16 (B 10).		960 00
JUNCTION.			
1,900 at	06.		114 00
1,000 at	07.		70 00
500 at	05.		25 00
KERN.			
100 at	4 50.		450 00
KERN RIVER OIL.			
50 at	13 00.		650 00
LION.			
5,000 at	06(C).		3,00 00
19,609 at	06.		1,176 54
MONARCH.			
325 at	50.		162 50
4,050 at	51.		1,045 50
700 at	52.		364 90
400 at	53.		212 00
100 at	54.		54 00
425 at	55.		233 75
25 at	60.		15 00
100 at	65.		65 00
200 at	63.		126 00
MONTE CRISTO.			
500 at	1 25.		625 00
OCCIDENTAL OIL.			
1,800 at	20.		360 00
300 at	19.		57 00
OIL CITY PETROLEUM.			
1,100 at	30.		330 00
PETROLEUM CENTER.			
100 at	05.		500 00
PITTSBURG OIL.			
2,120 at	45.		954 00
REED CRUDE.			
250 at	30.		75 00
SENATOR.			
300 at	60.		180 00
SOVEREIGN.			
684 at	41.		280 44
300 at	43.		129 00
STERLING.			
25 at	3 25.		81 25
100 at	3 25 (B 30).		325 00
50 at	3 25 (S 30).		162 50
100 at	3 20.		320 00
TWENTY-EIGHT.			
150 at	3 75.		562 50
100 at	3 90.		390 00
50 at	4 10 (S 90).		205 00
200 at	4 10.		820 00
99,980 Shares	Amount	\$26,746	20
EQUITABLE (POOL) GAS.			
5 at	4 00.		20 00
OCEANIC STEAMSHIP.			
3 at	10 00.		30 00

8 Shares

Amount \$50

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.	1.45	
Apollo.	38.	
Asso. Oil Co. Stock		
Trust Certificates.	.30	
Aztec.	.75	.80
Bear Flag.	.05	.15
California Standard.	.13	.14
Caribou.	.82 1/2	
Central Point Con.		.30
Chicago Crude.	.18	.35
Clairmont.	.30	.35
Esperanza.	.61	
Fauna.	.08	
Four.	.69	.70
Fulton.	2.50	
Giant.	.18	.25
Hanford.	117.00	122.00
Home.	2.60	2.70
Homestake.	5.00	
Imperial.	19.00	
Independence.	.15	.16
Junction.	.06	.07
Kern.	4.40	4.60
Kern River.	13.50	
Lion.	.05	.06
Monarch of Arizona.	.62	.66
Maricopa.		
Monte Cristo.	1.20	1.30
Nevada.	.20	.50
Occidental of West Va.	.20	.21
Oil City Petroleum.	.30	.32
Petroleum Center.	.05	
Pittsburg.		.50
Peerless.	15.00	
Reed Crude.	.31	.32
S. F. & McKittick.	2.50	
San Joaquin O. & D.	6.00	
Senator.	.55	
Sovereign.	.40	.43
Shamrock.	.24	
Sterling.	3.20	3.25
Superior.	.04	.07
Thirty-three.	8.00	8 50
Toltec.	.15	
Twenty-eight.	4.00	4.50
United Petroleum.	118.00	
Union.	64.00	
West Shore.	3.00	3.50
Western Petroleum.	.10	
Wolverine.		.52

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## DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON APRIL 27, 1903, declared a dividend, No. 14, of fourteen (14) cents per share, payable June 1, 1903. Books close May 26, 1903.

GURDON BRADLEY, Assistant Secretary.

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Lv. S. Fran.	8:00 a	9:30 a	4:20 p	8:00 p
Ar. S. Fran.	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p		1:28 p
" Fresno	3:20 p	3:00 p		3:15 a
" Hanford	5:00 p	3:54 p		7:50 a
" Visalia	4:48 p			5:00 a
" B'kfield	7:10 p	5:50 p		7:35 a
" Kan. C.		2:31 p		8:02 a
" Chicago		2:15 p		8:47 p

a for morning; p for afternoon.

8 a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.

9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.

4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.

8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.

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**THE MIDLAND-PACIFIC.**

Active Construction Work to Be Resumed on June 1st.

Councilman C. E. Lataillade, D. Orena and Chief Engineer Tush of the Midland-Pacific railroad returned last night from the route of the proposed new road through the Cuyama ranch, says Sunday's Santa Barbara Press. A satisfactory understanding was reached between the owners of the ranch and the representative of the company regarding the right of way through that property.

The work of grading the road is progressing satisfactorily, ten miles being completed through the upper Cuyama. On June 1st grading will commence at San Luis bay and will be pushed toward Santa Maria as rapidly as possible. Some delay will be caused in the construction work through the narrows, the entrance to the Cuyama, where six tunnels and thirty-five bridges will be built in a distance of eight miles. The construction of this short stretch will cost the company \$500,000.

The proposed road will, when completed, cover a distance from San Luis bay to Sunset, where the Santa Fe tracks will be used into Bakersfield. This gives rise to the rumor that the Santa Fe company is the chief factor in the Midland-Pacific.

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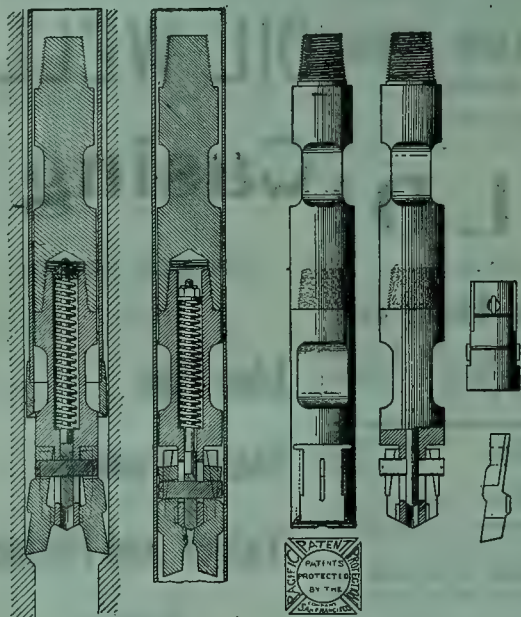
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Vol. 4. No. 28.

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# PACIFIC OIL REPORTER

VOL. 4. No. 28.

SAN FRANCISCO, CAL., SATURDAY, MAY 16, 1903.

PRICE, TEN CENTS.

## FAKE PIPE-LINE STORIES.

**The San Francisco and Interior State Journals Teem With Them.**

**Prepared By Those Ignorant of the Real Facts.—The Pipe-Line Is All Right, and the Oil Is Steadily Flowing Toward the Bay.**

The San Francisco dailies and the papers published in the different oil sections of the State have lately been teeming with articles to the effect that the great oil pipe-line from Bakersfield to Point Richmond was practically a failure, that the oil could not be made to run through the line under the present conditions, and that to make it run would neces-

sary, obviously rehashed from the Examiner, appeared in the Bulletin. This surprised no one who is acquainted with the conduct of the successor of the old Bulletin of the former days. If the Examiner should state in the morning that the moon of the night before was made of green cheese, the Bulletin would come out in the evening and repeat the

was being piped successfully, began to doubt the success and practicability of the enterprise.

Some belived it apparently who ought to have known better. Among them seems to have been the one who on Monday night was in charge of the Chronicle; for on Tuesday appeared the following article in the Chronicle, which paper, of all the papers on the coast, tries its best to publish correct news, and is not easily led into the mistake of sending out a fake yarn just because it is good reading matter.

The Chronicle says:

The Bakersfield "oil crowd", which circulates along Montgomery street, has become much perturbed because of the alleged failure of the Standard Oil company's pipe-line from the Kern county field to Point Richmond, and misgivings have cumulated to an alarming degree as to the fate of their properties.

the expert who superintended the construction of the line from Bakersfield and that another experienced pipe-layer is to be brought out from the East to direct the installation of additional equipment necessary to get the system in working order. There are at present twenty-eight pumping stations and this number will have to be doubled to force through the heavy Bakersfield oil. At every station the stream is heated in passing through a coil of pipe, and as the lighter ingredients evaporate in this process the oil becomes denser after it cools again the further it travels up the San Joaquin valley. The stream has reached no further than the station at Corcoran, which is only about half way to Point Richmond.

It is feared that even if the oil can eventually be pumped to the bay the cost and operation of so many stations will make shipment by the pipe-line more expensive than by rail. The \$3,000,000 project would then be an absolute failure, the great plans for refine-



Laying the 278-mile Pipe-line from Bakersfield to Point Richmond. This line is now completed, and on Monday the oil was successfully run between Corcoran and Lethent, the third 28-mile section of the line.

sitate the doubling up in number of the present ten pumping stations, and that even with this additional great outlay of money it was by no means sure the oil could be made to flow on account of its heaviness which would compel such a great pressure that the pipe would not be strong enough to stand the strain.

The Examiner was the first of these papers to print this sad refrain. This was not surprising as those who know this paper best are never astonished at any piece of mendacity that may appear in its columns. It will print anything that comes along, true or false, provided the articles are likely to attract attention. It is the most unreliable of any of our city dailies so far as the truth of its articles is concerned, and the fake story of the failure of the pipe-line is an illustration.

The same day the article appeared in the Examiner a similar

yarn, perhaps changing it to say that the cheese was yellow instead of green.

The stories of the Examiner and Bulletin were good reading, apparently, to those who know nothing of the facts of the case, and were obviously so regarded by the sage youth who selects the stuff that is to be sent out each day in the form of boiler plate to a lot of country papers all over the State who depend for their telegraph and other news largely upon the boiler plate manufactory. They received it that day as usual, and among the stuff, good and bad, was the same yarn that the pipe-line was a failure. Between the city dailies and the country dailies and weeklies, the story had a wide circulation, and as it appeared often and in so many localities it seemed to carry with it the impress of truth, and many, who until then believed the pipe-line was all right and that the oil

The oil land owners have suddenly come to regard the Standard with much distrust and the wildest conjectures are indulged in as to Rockefeller's plans for a stifling grip on their throats. Some of them are convinced that the pipe-line will spout oil from its bay terminus successfully, if the Standard people so desire, and that they give out reports of failure for the purpose of depressing the price of lands in Kern oleaginous belt with a view of becoming their owners. On the other hand, if the line is really not a success the disappointment will be keen to the claim owners, because it was hoped that the operation of the conduit would occasion a material raise in the price of crude oil. The capacity of the pipe was intended to be 10,000 barrels a day, and this amount withdrawn from the crude market and disposed of in the refineries would have had a very beneficial effect on the price of the product used for fuel and road-making.

It was reported yesterday that the Standard people have become dissatisfied with the services of

ment of California oil would necessarily be curtailed and the expected relief from an over-supply in the crude market would not be realized. The value of the Bakersfield lands would be seriously depreciated and the hopes that the Standard would soon begin to buy them up at good prices in order to supply the big refinery at Point Richmond would be dashed to the ground. At present the company owns no land in Kern county, but it has contracted for about 15,000,00 barrels for future delivery.

Some of the claim owners say they were forewarned some time ago, on authority which some of them doubt but to which others give credence, that at first the pipe-line would be a failure in order that it might gather up the wells at cheap prices.

An avenue of relief that is looked to is the building of the Midland Pacific railroad from the oil belt to Port Harford, a seaport in San Luis Obispo county. Twelve miles of track were laid

(Continued on page 8.)



## THE MANY USES OF ASPHALT.

### Surprising Number of Ways to Which the Product of Our Wells Can Be Put.

**This Number Although Already Large, is Constantly Increasing, and Asphalt is Now a Necessity Where Its Use Before Was Unheard of.**

Not long since Mr. W. H. Delano, at that time general manager of the Compagnie Generale des Asphaltes de France, Limites, published a little work entitled, "Twenty Years Practical Experience of Natural Asphalt and Mineral Bitumen."

In this work, which is very interesting to producers of, and dealers in asphalt is a chapter devoted to the uses to which asphalt may be put. While all the uses are by no means specified enough are given to show to what a range of employment asphalt may be applied.

Without giving this chapter in its entirety we extract as follows: **ITS QUALITIES.**—After the necessary manipulation, it becomes impervious to water and air, resists fire and acids, insulates the electric circuit, produces no sparks by contact with iron, repels vermin, absorbs vibration; its vapors are antiseptic; it is durable, easily repaired; so malleable that it can be applied to any curve, so ductile that it will yield to any ordinary pressure from whatever direction without cracking. It is unaffected by frost, and though slightly softened by heat, say 125° Fahrenheit, it never disintegrates, even at 450°, and upon returning to its normal temperature has lost none of its qualities.

It produces no dust, consequently no mud.

It can be laid by workmen of ordinary intelligence in any climate, for its malleability can be increased or decreased at will, so as to suit the temperature of arctic or of tropical regions.

Apart from its hygienic properties, its noiselessness, its harmonious tint, it is most agreeable to walk upon (not hard and slippery, like granite, cement, tiles, etc.) It is in fact the street carpet.

Its duration is greater than that of granite and flag, its first cost and annual maintenance less.

The traction for horses on the level is easy, they can draw from three to six times as much as on rough coarse metal or stone pitched roads.

**IMPERVIOUSNESS TO MOISTURE.**—Let us consider the "damp course", so simple, and so useful, that it ought to be made compulsory in building operations.

When it is remembered that

one porous brick, 8½ inches by 4½ inches by 1¼ inches, weighing say 4.78 pounds avoirdupois, will absorb and hold three-fourths pound of water, one is astounded at the amount of water there may be contained in an ordinary wall, drawn up by capillarity, causing rheumatism, fever, and other diseases, apart from discomfort and depression, shortening the lives of adults, checking the development of children. Asphalt arrests capillarity, and settlement of masonry does not cause it to crack like cement.

Some twenty-five years ago, a handsome house was built on the borders of the Lake of Enghien, a Seyssel asphalt damp course was used, and the walls, as far as regards the unceasing action of capillarity, kept perfectly dry. But one day some underpinning was done; the mason forgot to relay the asphalt damp course, or else thought it was a sad and willfully neglected to repair it; the consequence was, walls saturated to such an extent, that the house became uninhabitable.

**FIRE AND VERMIN PROOF FLOORS.**—An excellent and springy floor is made by setting the joists in asphalt mastic, and afterwards nailing down the batten in various patterns, care being taken not to leave sufficient space between the battens and asphalt for rats and mice to pass; the asphalt is un-inflammable, and will not allow air to pass.

Sometimes the boards or battens are laid direct on asphalt without joists, but then the floor is not so elastic, and may not always keep level.

**COATINGS OF ASPHALT MASTIC UPON THE ARCHES OF VIADUCTS AND BRIDGES OF STONE OR IRON** keep out moisture from above, and so prevent the action of percolation and frost upon the joints and keystones, and thus arrest decay.

Water is the enemy and must be kept out—well laid asphalt is the remedy. How many accidents are constantly occurring to railway bridges, owing to the neglect of so simple a precaution.

**CASEMATES** should always be coated with liquid asphalt under the bomb-proof earth covering.

In time of war soldiers must live in dry casemates or they will soon be down on the sick-list.

Military engineers are expensive, and it pays to take care of them.

Heavy masonry always settles, and if only a Portland cement coating be used it will crack and split, and be of no more use to keep water off than a sieve.

The author once witnessed the following proof of the correctness of this. About twenty feet of earth was removed from the roof of a bomb-proof casemate, and the coating of Seyssel asphalt examined, after forty years' burial. There was no crack anywhere, it had yielded to the settlement of the masonry, long roots of lucerne had in vain tried to penetrate it. The interior of the casemate was dry and habitable.

The strong room of an important public company in Paris has been walled with bituminous concrete, the walls, with books inside, having been previously submitted to a fierce fire. It is as impenetrable to air as to water.

When a coating of gritted asphalt is used on a roof, it will, in case the foundations are burnt, fall in and stifle the flames like a wet blanket.

The result has been proved by insurance companies on several occasions, by actual tests. It is flame-proof.

**RESISTANCE TO ACIDS.**—Specially-made mastic will resist the action of acids for a long time; the

bitumen resists completely and defends the limestone component. It is used for lining tanks required in electrolysis and for electric batteries.

**INSULATION.**—Bitumen is an excellent insulator for electric wires, at least 30 per cent superior to gas-tar. It will resist the action of underground moisture.

The author has often seen leakages of electricity completely arrested by drowning the wires in asphalt mastic as they lay. This was particularly the case at the National Opera House in Paris, where condensed water, getting into the trough where the wires were, rotted the hempen coating and caused a leakage of 30 per cent.

**POWDER MAGAZINES.**—Asphalt produces no sparks by contact with steel, so is excellent for powder magazines. The floors, often made with timber fastened with copper nails, rot after a time, but asphalt defies time. Of course, for powder magazines pure compressed or pure liquid mastic should be used, not gritted mastic.

**ABSORPTION OF VIBRATION BY BITUMINOUS OR ASPHALIC CONCRETE AND COMPRESSED ASPHALT POWDER IN MOULDS.**—One of the most interesting applications of asphalt is that of bituminous or asphaltic concrete for quick-speeded machinery, such as dy-

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namos and their motors, grinding machinery like Carr's disintegrator (700 revolutions per minute) by hydro-extractors (1,400 revolutions per minute), printing-machines, and percussive machines like gas engines, stamping-presses, steam-hammers, spring-hammers, etc.

The author has during the last twenty years arrested many a lawsuit begun by indignant neighbors against users of machinery in the crowded houses of cities. A high-speed engine working in a cellar will make a seven-story house tremble, and at night prevent sleep of the inmates.

The asphalt concrete may be run in moulds to any shape and sold by the cube.

The cure is complete, when the mass is big enough. For instance, take the foundations for a stamping press, the gradual annihilation of the concussion can be felt by placing the hand on the side of block of bituminous concrete which receives it. The latest application of asphalt concrete for this purpose is that of the electric-light motors at Moet and Chandon's, Epernay, France, where it was absolutely necessary to prevent the 8,000,000 bottles of champagne in the cellars from shaking.

The foundations for the dynamos and their motors in most of the Paris theatres are of bituminous concrete. They are surrounded by brick walls. No vibration is felt; the temperature in the cellars where the engines are is 120° Fahrenheit.

For steam engines the surface of the foundation must be laid in cement, or have a layer of stone, to avoid bad effects of oil and grease, which are prejudicial to asphalt after a certain time. This application of asphalt requires extra care, and must not be attempted except by professional asphalters, as a failure would be no trifling matter. Only the best materials must be used. A block may take three days or more to settle and cool.

The same effect can be obtained by successive layers of hot asphalt powder compressed in a strong steel frame; and this plan is used for steam hammers, avoiding the jarring of walls and the breakage of glass in skylights, etc.

M. Malo was the first to use as-

phalt to avoid the vibration of machinery, and has carried out at Pyrimont works, the center of the Seyssel Asphalt concession, many ingenious applications. The author has followed his lead in Paris. The instances are now too numerous to detail; they vary from stamping-presses and printing-machines to the heaviest engines.

At the present time (1893) an underground railway is being constructed near the astronomical observatory of Paris. The astronomers find that their mercury bath and various delicate instruments vibrate. Both M. Milo and the author are being consulted as to the remedy, which will have to be paid for by the railway company.

Either the instruments will have to be mounted on bituminous concrete foundations or else the whole building of the observatory be insulated by a wall of bituminous concrete at considerable expense.

Many useful new applications of asphalt concrete are yet in their infancy. One is to line the granite embrasures of forts with this material, which makes no splinters. Splinters often do more harm to artillerymen than explosive bullets. Lead bullets will flatten when fired against asphalt powder heaped up.

It is this quality, shared by indiarubber, cork, and to a certain extent wood, which, coupled with its impermeability and artistic color, renders compressed asphalt so suitable for the streets of crowded cities.

The din and jar of street traffic are a torment to artists, literary men, men of business, women and young children.

The passing at eight miles an hour of a heavily laden four-wheel van over a stone or cobble road way, will make a six-story house tremble from top to bottom, and often dislodges bricks, tiles, and architectural ornaments.

It is fortunate for dwellers in cities that there exists in compressed asphalt a pavement, cheaper than granite, that suppresses such exasperating annoyance.

Asphalt roadways enhance the value of house property, diminish traction, are not of themselves slippery; produce no dust, there-

fore no mud; absorb no liquid nor solid excremental matter, nor filth nor putridity, therefore under the hot blaze of a summer sun emit no miasmata. Asphalt affords no element for fermentation, is therefore hygienic par excellence.

It should be used universally; the only excuse admissible for its non-use should be the want of money and power to borrow it. But there are always enemies to progress—those who say, What was good enough in old times is good enough now; those who ignore the results of comparative experiment; the faddists; and those who condemn without experiment.

**DURABILITY.**—Compressed asphalt, subjected to ordinary wear and tear, will last without complete renewal from fifteen to thirty years; for instance, the compressed asphalt laid in Cheapside in 1870, resisted the central traffic of London for over seventeen years, without causing a single day's stoppage of traffic; and there are streets in Paris where the asphalt is over thirty years old.

The life of an asphalt roadway depends upon the number of vehicles passing in twenty-four hours, their weight and speed, the use of brakes; also upon the amount of rainfall, of frost, of hot sun.

Repairs are made in dry weather with hot powder, and a careful workman will not let his jointing be visible.

In persistently cold, wet, foggy weather, holes can be temporarily stopped by liquid asphalt in two layers, but a dry surface of concrete can be obtained by spreading a thin layer of liquid mastic over it.

**MALLEABILITY.**—Asphalt, particularly in its form of mastic, is slightly elastic, and at ordinary temperatures (say 60° Fahrenheit) ductile.

This gives it the advantage over cement coatings, which are non-elastic, and therefore crack and crumble. Cement once used is lost, whereas asphalt mastic, like lead, can be used over and over again by adding new refined bitumen.

In Paris, where there are many trees in the public thoroughfares, the roots often force up the footpaths or sidewalks, yet the asphalt mastic rarely cracks, although it contains a large proportion of grit; it bulges up only. In a pure state, without grit, it might

be folded double without cracking.

**NOT AFFECTED BY FROST.**—This quality allows of snow being removed from it with ease, there ensues no perceptible contraction or expansion, however sudden the changes of temperature may be. In this respect it compares favorably with wood pavement, which swells up after rain, or frost following rain, the force of which expansion is resistless, pushing up curbs, overturning street lamps, or in case of the over-resistance of a party wall buckling up on itself.

**NOT AFFECTED BY HEAT.**—Its nature is not altered thereby; it softens slightly under extreme day heat (say 100° Fahrenheit), but returns to its original form at sundown. It is a non-conductor.

**VERMIN.**—It repels rats and mice, perhaps by its smell, but chiefly by clogging up their teeth; thus in Paris, where there are as many rats as Parisians, the sidewalks are undermined, but the gritted asphalt mastic is never knawed through, yet cement is attacked.

This quality renders asphalt excellent for stables, granaries, stores, warehouses, corn-mills, breweries, malting floors, distilleries, dairies, cheese factories, etc.

**NOISELESSNESS.**—It is of course owing to the presence of mineral bitumen in the limestone which causes percussion and vibration to be absorbed; also to this peculiar fact, that in a compressed asphalt the roadway is always of closer texture than the underlying parts. This is just as perceptible in asphalt worn to less than half its original thickness.

The sound of the horses' hoofs is heard as a sharp "toc-toc," without vibration or resonance, warning the pedestrian of an approaching vehicle, while the rolling of the wheels is noiseless, for wheels do not bump on asphalt as they do on stone or macadam.

On wood pavements the sound of the horse's hoof is not heard—a danger for deaf or careless crossers.

It has been said indeed, that wood pavement cures deafness by killing off the deaf.

**AGORAPHOBIA.**—In these modern times a new malady has arisen. Agoraphobia is the mental suffering caused by street noises of all kinds, but particularly the rumbling of heaving vehicles on granite setts or cobble pavements.

In Paris, for the last twenty-five years, landlords, managers and heads of schools, churches, theatres, banks, as well as private householders, have clamored for compressed asphalt roadways, in some cases, where the stone road was new, paying 2s. 6d., or say 60 cents, per foot run for the substitution.

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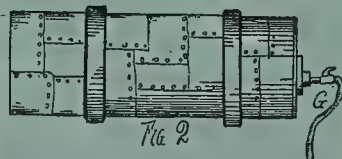
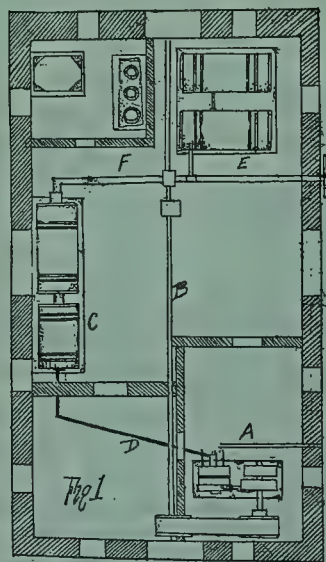
## PETROLEUM FUEL EXPERT.

### A New Departure In the Oil Well and Engineering Profession.

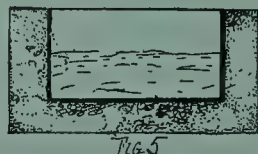
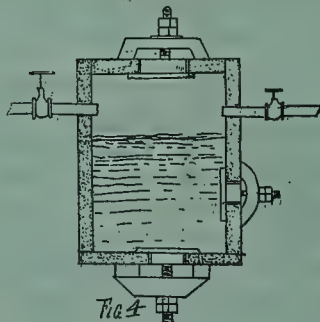
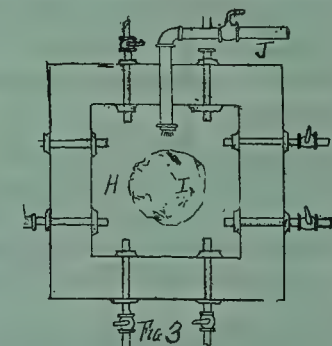
#### The Work, Workshop, Accomplishments, of This New and Important Branch of Engineering, Which Brings Rich Emoluments.

Some years since the opening of many petroleum oil wells in the country resulted in the establishment of the permanent position of "oil shooter" and "oil well engineer" and the like. To-day the results of the advent of petroleum oil for fuel in place of coal have resulted in the creation of the position known to the oil profession as the oil fuel expert. It is of the oil fuel expert that a contributor to Oil, Paint and Drug Reporter writes in this article. When the oil fuels of the country

give market open for their services, their devices and plans. Men who had designed during spare hours, and who were engaged at other lines of work, found it necessary to devote all their time to designing and building modern forms of oil fuel burning devices for the household, the shop, the foundry and the public building. The result has been the advent into the oil well and



EXPERIMENTING SHOP OF THE MODERN OIL FUEL EXPERT.



SOME APPARATUS WITH WHICH THE OIL FUEL EXPERT EXPERIMENTS.

were first being utilized under boilers in power plants, for stoves for cooking and heating purposes, and for soldering and kindred mechanical processes in the metal working shops, the work was handled chiefly by untrained men. There were then no "experts" in the particular lines of oil fuel burning operations, and the whole thing was, so to speak, in an experimental stage. However, there were many persons trying various schemes with oil for fuel, with the hopes of inventing new and improved devices for burning the oils, so that when the demand for oil for fuel came in great force in 1902, these men who were partly prepared with oil fuel consuming contrivances found a very exten-

sive market open for their services, their devices and plans. We may investigate the work and accomplishments of this now important office.

The best place to catch a man whom you are to investigate as regards his work, achievements and resulting effects, is to go into his shop. It is easy to locate shops of the order in question in almost any portion of the world, for during the last year or so the petroleum expert has come to be a fixed thing, due to the extensive introduction of oil for fuel, not only in the districts that were impoverished of coal in America in 1902, but in all of the manufacturing sections of the countries of the old world. I will first remark on the shop of the oil fuel expert.

In order to keep up with onward rushing events, the proprietors of oil fuel burning devices, especially those who cater to the power and transmission trade, as well as to the households and public institutions, find it essential to have separate buildings erected for the man in charge of this line of work. Figure 1 is a view of the floor plan of one of the buildings of this design, fitted throughout with the required space and apparatus for carrying on special experimental work in the line of oil fuel consumption. The building is fitted with a power plant of about 150 horse power in department a. Department b is a room in which there are benches and bench devices for cutting rods, pipes, threads on same, bolts, nuts and general small work as needed in the average testing and experimental shop in which pipeage and kindred apparatus is handled in varied shapes and sizes in the line of experimental work. Here there are the necessary drills, planers, lathes and connected machines. A shaft line runs through the center of this department as shown, and the needed belting is run from pulleys upon the line to the mechanisms below. At c is a set of boilers for experimenting with and likewise a set at e. Distributed about the departments one sees

cooking and heating stoves, lamps and related devices in various stages of experimental operation with oil fuels. Over at f is the tankage, in which there are oils of different caliber, ready for testing in varied forms in the selections of apparatus in course of service in the experimental work. Of course, it is all experimental. The engineer in charge of the power plant, as well as the mechanics and all employees, are subject to the orders of the oil fuel expert. It is a case of trying, testing, altering and improving upon oil fuel burning apparatus from morning until night, with the gratifying result of an improvement now and then, which improvement is patented and becomes the property of the company and is, perhaps, applied to devices manufactured in the main shop.

The oil fuel expert of modern times, although he may not have been actually an oil fuel expert very long, as a rule works hard and usually derives a good income. From available data, the oil fuel expert of the larger concerns that manufacture oil fuel consuming devices earns something like \$4,000 per year salary, with commissions, as a rule, on new and successful improvements, which, I am informed, will average about another thousand per year. On the

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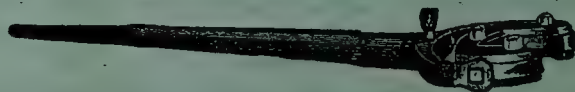
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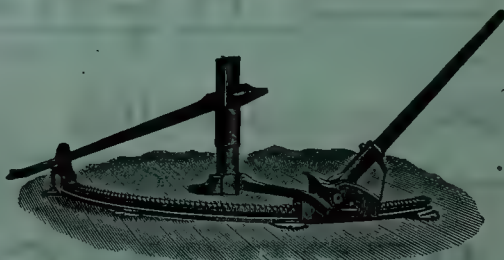
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other hand, some of the smaller concerns pay only \$3 or \$4 per day and no commissions or royalty. Then there are oil fuel experts engaged in attics and individual shops, working for themselves, and derive no returns upon their labors unless they can invent a marketable and practicable device or attachments to oil fuel contrivances, in which case one of the manufacturing concerns may buy the same. In the side shops of these theory tinkers in oil fuel burning devices one sees all manner of devices, one of which is sketched in Fig. 2, consisting of the form of strengthened tank used for containing oil for storage in houses, shops, etc. The tank is strengthened with heavy metal bands, which bands serve not only to sustain the sides of the tank, but furnish means for rolling the tank from place to place, for purposes of filling or removal. The outlet pipe is at g.

Possibly the most interesting observations in the shops of the oil fuel expert are made when you glance over the varied contrivances in process of completion and experimentation for burning oils to the best advantage under boilers and in stoves and furnaces. Figure 3 is a sketching of one device seen by your correspondent in the experimental stage.

A square chamber is made with brick work, about three feet across and about four feet high inside. The interior of the chamber is designated h. There is a ball of fire clay at i in its unfinished state. Series of pipes are admitted for admitting oil fumes as shown on all sides, while pipe j admits air. I watched the oil fuel expert stand over and near this device in operation for hours. First a little more oil fuel fumes, then a trifle more air, and the like, with stoppages at times to examine the effect of the heat upon the clay. In this manner the requisite proportion of gases from the oils and the air are ascertained and made note of, with resulting effects in the flames working upon the ball of clay.

The oil fuel expert has much testing of tanks, cylinders, pipes and kindred work to do. In Fig. 4 we show one of the processes for testing under pressure. The device for testing is furnished with one or more air pipes, and a vacuum pump is utilized for forcing air into the chamber above the oil in the retort until the required strength is assured. If the tank or receptacle shows no signs of expanding or weakening the test figure in pounds and ounces is recorded on the necessary tag and the test is finished.

Because of heat and sometimes gas generation in tanks with closed tops, when the reservoirs are exposed to the heat of stoves or pipes in kitchens, the oil fuel expert finds himself testing open top

reservoirs now and then, one of which is shown in Fig. 5. The top provided for this kind is simply a cover of metal or wood, arranged so that particles of matter falling from above will not drop into the tank, and still air space is left along the sides under the cover by means of having the cover proper elevated a little with set blocks. But the tank is shown particularly for the purpose of showing storage construction of a cement tank in place of a sheet iron or metal one. This is made of cement, together with small gravel. The interior is lined with pure cement about an inch thick. A wood cover is used. Thus the oil fuel expert is grinding out these new things and making improvements in devices and apparatus all the while.

#### New Companies.

The Sanborn Oil company, a corporation organized in this State, last week filed articles of incorporation at Bakersfield with the county clerk. The principal place of business, which was located at Jackson, Amador county, in the articles, was transferred to Bakersfield at a meeting held the 15th of April. The capital stock of the corporation is \$25,000. The principal stockholders are Samuel Sanborn, Mrs. H. F. Sanborn, of Valley Springs, Calaveras county, and E. A. Freeman and W. H. Willis, of Jackson, Amador county.

The Indiana Oil company has filed articles at Bakersfield. The principal place of business is at Fresno, and the directors are T. G. Hart, Jacob Clark, F. M. Helm, A. Hall, L. L. Cory, all of Fresno. The capital stock is \$100,000.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

#### ANOTHER OIL-BURNER.

The New Ferry Steamer Ramona Successfully Launched.

The new ferry steamer Ramona was successfully launched without ceremony in the Dickie shipyards, Oakland harbor, last Thursday. The only persons present, save those engaged in the work, were sub-contractor John Dickie and Captain John Metcalf, who represents the Coronado Beach company, and a representative of the Risdon Iron works, which will equip the boat with machinery. The Ramona will use crude oil for fuel and will ply between San Diego and Coronado.

The vessel is built almost entirely of Oregon pine, and will be provided with sidewheels and double ends. Her dimensions are as follows: Length over all, 130 feet; length between perpendiculars, 118 feet; breadth of hull, 29 feet; breadth extremes, 49 feet; depth of main deck, 13 feet 9 inches; draft of water, 6 feet 3 inches. In the center of the ship for about seventy feet there is a driveway 16 feet 6 inches wide, and on each side is a comfortably furnished cabin for passengers, with broad stairways leading to the upper deck.

Two high-pressure condensing engines, 20 inches in diameter, with a 6-foot stroke, of the incline type, will be placed in the vessel, one on either side of the hull. The cranks will work in a recess above the main deck. Steam will be supplied from two boilers, gun-boat type, 7 feet 9 inches in diameter by 16 feet long, having a steam pressure of 150 pounds. A donkey boiler will also be installed. The paddle-wheels will be 17 feet in diameter and built of iron and steel, except the floats, which will be of Oregon pine specially treated with carbolinum.

#### Oil Litigation.

William H. Boynton has commenced a suit against the Western Petroleum company, Wellington Gregg, Jr., W. S. Downing and Edwin Suabb to obtain judgment for \$50,000 damages for unlawful possession of the west half of the southwest quarter of the northwest quarter of section 20, township 30 south, range 22 east. The plaintiff alleges that Corwin Radcliffe, C. D. Radcliffe, W. H. Cook, James F. Peck, Charles S. Peck, Jessie Peck and M. D. Wood located the land described on January 12, 1902, as mineral land and filed a placer claim thereon. The plaintiff acquired the land by assignment. The plaintiff alleges that the defendants claim the land by some right, and have been in possession of the property and engaged in its exploitation. By reason of the possession by defendants, the plaintiff alleges that he has been damaged in the sum of \$50,000, and asks for that amount and also for a decree quieting title of the defendants adverse to plaintiffs James F. Peck and Charles C. Boynton, attorneys for plaintiff.

Solomon Jewett and H. A. Blodgett have commenced an injunction suit against the Occidental Water company, J. A. Waltman and Emmet Graham to restrain defendants from laying a pipe line across the east half of the west half of the northwest quarter of the northeast quarter of 13, 11-24. The plaintiffs ask that after a hearing of the case the injunction be made permanent. Smith & Allen, attorneys for plaintiff. The California Consolidated Oil Fields company has filed a similar suit against the same defendants, restraining them from laying a pipe line across the west half and the southeast quarter of the northeast quarter, the southwest quarter and the south half of the southeast quarter of 12, 11-24. Smith & Allen, attorneys for plaintiff. The hearing in the cases will take place May 25, 1903.



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For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank.

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HANFORD



## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed by the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
A. R. Derge & Co., Salt Lake, Utah.  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
11 Columbia Street, Boston, Mass.  
20 Broad Street, New York City.

SATURDAY.....MAY 16, 1903

Shipments of oil from the Beaumont field for the first three months of the current year are reported at 16,426 cars, containing 2,791,483 barrels. This is an average of 930,000 barrels per month, and about 31,000 barrels a day.

At the present time the railroads of California are consuming oil at the rate of 6,000,000 barrels yearly.

For a year or more the railroads have been changing their engines over from coal to oil burners as rapidly as possible, and there are still a very large number of engines still burning coal simply because it has not been possible to yet make the change. When all are changed the consumption of oil by the railroads will exceed 8,000,000 barrels. This is not all. The Clarke road will soon enter the State, and will also be a large consumer. The line of the Santa Fe to Eureka and beyond will be using vast quantities of oil. So that in a year or two at the outside the railroad consumption of oil will exceed 10,000,000 barrels annually.

This is only an index as to how rapidly the demand for oil is equalling the supply. If oil men will only stand together and not sacrifice their oil it will soon reach a fair price in the market, and 20 cent oil will be a thing of the past.

The new Nebraska oil law passed by the last legislature and signed by the governor, requires all oil to test not less than 112 degrees.

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## FAKE PIPE-LINE STORIES

(Continued from page 3.)

from Sunset in the direction of the ocean over a year ago, but operations suddenly ceased. Recently the company floated a bond issue of \$2,000,000 in Boston, and contractors are figuring on bids for the grading of the remaining 100 miles to the seaboard. It is expected that within a month the dirt will be flying, and that trains will be running within a year. E. P. Vining, the well-known authority on railroads, has made a report on the Midland Pacific railway, and his unqualified indorsement of the project encouraged the financial people in the East.

By the oil men this railroad has been hailed with much satisfaction, and now that their hopes in the pipe-line have been shaken, they are watching with renewed interest the progress of the undertaking. I. E. Blake, who is chief promoter of the Midland Pacific, stated yesterday that he is positive his road will be able to carry oil to deep-sea connection cheaper than could the pipe-line, even had it been successful, as originally planned. His claims have correspondingly increased since it has been found that the Standard's enterprise will at least be much more expensive than expected. The Midland Pacific, when finished, will, of course, benefit the claim owners very much, because it will alleviate the transportation problem, which is all important in the oil business. The advantages, however, could not be so great if the Standard had succeeded in fulfilling its promise of diverting 10,000 barrels a day from the Bakersfield wells to the refining process and relieve the glut in the market. Had the company been able to transmit 10,000 barrels a day to its refineries, it would have produced enough kerosene to supply the Pacific Coast, China, Japan and the Philippines.

The affrighted oil men even suspect the Midland Pacific. They say that some of the railroad's promoters were formerly employees of the Standard, and may be working really in the interests of that company. The fact that John D. Rockefeller is interested with George Gould in the promotion of the Western Pacific road to this coast is the only thing that reassures them that the Standard will not form a freeze-out combination with the Santa Fe or the Southern Pacific, as was done with the Pennsylvania railroads, when it secured full control of the oil interests of that state.

The opinion is advanced that the Midland Pacific may be intended to become a part of the Western Pacific and provide it with an ocean terminus, which it was denied in San Francisco at the recent session of the legislature.

From the above it is evident that some reporter who knows nothing about the oil business or the oil situation in California fell foul of our good friend "Uncle" Isaac E. Blake, and "Uncle" proceeded to fill him full of wind. The reporter is not to be blamed, either for the fact that he himself knew nothing about the oil business, or because he allowed Uncle Isaac to stuff him. He is not the

only one that "Uncle" has treated to generous allowances of wind pudding. In this line "Uncle" is an artist. His song is sweeter than ever issued from the rosy lips of the Lorelei, and many a one has listened to it ere now. The reporter got off easy. Although it is more than likely that on Tuesday he was called into the inner office, and listened to a talk which while not as sweet as that of "Uncle" was considerably more emphatic. The Midland Pacific got a nice boost, free of charge, but the Chronicle, so far as its oil news is concerned, is no more reliable than the Examiner or the Bulletin. When you say that you hit the Chronicle in a very tender place.

Now we do not want to be misunderstood as belittling the Midland Pacific or saying anything against its main promoters, Messrs. Blake ("Uncle Isaac") and Feist. We wish them every success, and hope the Midland Pacific will not be left high and dry on the shore of a moneyless sea in the same plight that has befallen several other railroad projects of "Uncle Isaac". He has been stranded on railroad schemes so often that he deserves success at last, and we hope he will achieve it in this instance. Another railroad from the oil fields to tidewater will be a great boon to the oil men and the State generally. But when the Chronicle states that twelve miles of the road have been completed and the rails laid it states what is not so, and we do not believe that even "Uncle Isaac", with all his imaginative, generous and impulsive nature believes it, or told the reporter so. If he did he just slipped a cog when he did not mean to. It was a mistake. Too much oil on the track. Got to going and couldn't stop.

The fact is that in order to make a showing on which their Eastern agents could work, the Midland Pacific had to do some actual construction work on their road before they could get funds. That was all right. Anything is good that helps along a legitimate railroad enterprise handled by such good men. So these gentlemen picked out the easiest piece of road in the whole stretch of 110 miles between Sunset and the coast, a stretch of ten miles, where there isn't a hill to cut through or a hole to fill up, or a stone as big as a pebble to remove, and that ten miles is graded more or less. It lies about twenty miles east of Sunset, and eighty miles from tidewater. That is all there is to it. If "Uncle Isaac" has through this got into the treasury of the road \$2,000,000 from the sale of bonds, as the Chronicle says he has, we want to extend to our heartiest congratulations to "Uncle Isaac" and pronounce him a winner at last.

There is no use in talking. You

cannot keep a good man down. "Uncle" has won out at last. The Chronicle says he says he has, and that is enough. What he says goes. If you do not believe it go to Portland; or San Bernardino; or Denver; or any place where he has operated, and you will be satisfied. You need not even leave San Francisco.

We do not wish to put any hindrance in the way of the ultimate completion of the Midland Pacific Railroad. On the other hand, we want to see it built. We do not desire to say anything or intimate anything as to Mr. Blake's past railroad experiences that could in any way interfere with his successfully engineering the way out of the financial difficulties that at present threaten the success of the enterprise. Another railroad is needed.

The Chronicle is wrong in stating that the stories of the failure of the pipe-line emanated from the Standard people. On the contrary, the story emanated from the newspapers, and the Chronicle has done its part in injuring the producers by spreading the story of the pipe-line failure, and thus adding to the discouragement of the oil men. A yarn like this from such a source tends to lessen the price of oil. Instead of aiding the oil industry, as it should, the Chronicle is hurting it.

At present there is a great and growing shortage of oil tank cars. Every field feels it. The Standard, the Associated, the Pacific Oil Storage and Transportation company, the Union Oil company, all feel it, all the small individual producers are affected, from those of the Coalinga to those of the Fullerton field. The only way of lessening this shortage is in the success of the pipe-line; and now for the Chronicle to come out and state what is untrue—that the line is a failure—is to put a new and unnecessary burden on the backs of the producers and consumers alike, for the consumers will be as much benefitted by the success of the pipe-line as the producers.

Every day after the pipe-line gets to going means an addition of 10,000 barrels of oil to the amount that has heretofore been coming to San Francisco bay from the Kern and Coalinga fields. When the Midland is completed, as we hope it will be soon, there will be another benefit accruing to producers and consumers, and for that reason when the Midland Pacific gets to running we will be the first to extend congratulations and ask for an annual pass.

With all due respect to the Examiner, the Bulletin, a dozen interior and coast papers, and lastly to the Chronicle, the PACIFIC OIL REPORTER begs to state that the pipe-line is all right; that it is not in the least respect a failure; that it has broken in fewer places than



any other pipe-line ever laid long. That is the whole story, probably in the world, and that these few breaks were due simply to the defects in the welding where the seams were joined.

The line has been tested nearly its entire length, the weak places made strong by taking out the lengths where the water test showed imperfect welding, and two sections were running the oil last week. This paper thought the third section would be running by the time it reached its readers last week, and the reason the third section was not running was because of the arrival of Mr. John Page, who has been appointed

long. That is the whole story, gentlemen. Furthermore, no one has been deposed to make room for Mr. Page, and the company is eminently satisfied with its engineers and those who have had charge of the construction of the line.

The oil of the Kern River field is a heavy oil. As compared with other oils in the State it runs slowly. It is heated before it starts in the pipe and will run easily as long as it is kept hot. The only difficulty experienced thus far is in getting the pipe hot, and that is the whole difficulty. Once got warm the pipe

does come the Chronicle can get out a good story, and this paper will furnish photographs if the Chronicle wants them, and also supply correct information if the Chronicle's reporters cannot obtain it elsewhere. Anyhow we advise some other informant than those who have previously imposed on the various newspapers of San Francisco.

Incidentally we remark that in publishing stories about the failure of the pipe-line and thus depressing the price of oil the newspapers have conferred a favor on the Standard by enabling them to buy oil at lower prices than would

have been asked for the oil had not the producers been afraid of the success of the pipe-line and thus been willing to sell at a less price than otherwise would have obtained.

It is reported that an American company intends exploiting petroleum lands in the valley of the Taro, Po province, Italy. The crude is reported to be abundant and excellent in quality.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



Wells of the Monarch Oil company in Sunset. The company has valuable holdings and several fine wells. It will soon be marketing large quantities of oil, and will be able to declare large dividends. A great deal of its stock has recently changed hands, and the price has gone up per share from 25c to 65c.

general superintendent of the pipe-line, and who could not reach the field before Monday morning. The editor of the PACIFIC OIL REPORTER happened to meet him on the Sunday night train to Corcoran, and his appearance bears out the reputation he brought with him from the East where for years he was the assistant general superintendent of the great Buckeye Pipe-Line of Lima, Ohio. The oil was not started in the third section of the pipe-line awaiting the arrival of Mr. Page, so that he might see the working of the oil in one section of pipe, twenty-eight miles

stays warm, and the oil flows freely. If the company could get plenty of water so it could send the hot water through the pipe until it was heated up, the oil would flow through as easily as does the water. But water is a very scarce article on the San Joaquin plains, and it has been impossible to get it. So the company is working patiently along with the oil, and is succeeding even better than it anticipated. Possibly in less than four weeks the oil will pour through the pipe at the Point Richmond terminal; it may come through sooner. At any rate it will come, and when it

### Our Promise

That the Norwegian Consolidated (Gold) Mining Co. would commence the payment of regular monthly dividends in 1903 has been fulfilled. The directors have declared the first dividend, payable to all stockholders of record May 10. The next advance in the price of stock will be to par, \$1. If you have not already sent for the prospectus and facts do so to-day.

C. M. HATCHER & CO.,  
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Our booklet, "How to Investigate" a mining proposition, is FREE. Send for it.



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA

The Southern Pacific Railroad company has sprinkled oil along its roadbed leading through Golden Gate from the Mole to Berkeley.

### COALINGA.

COALINGA, Cal., May 11, 1903.

The Call Oil Co. is ready to spud in this week.

The Hanford Oil Co. will begin rigging up for well No. 4, to be ready for drilling as soon as No. 3 is finished.

Mr. H. Smith, president of Section 7 Oil Co., who has been away for three weeks, has returned to the field for a few weeks before returning East.

W. P. Kerr has leased the E. 1/2 of the W. 1/2 of the NW. 1/4 of section 34, 19-15. Canfield & Kerr have leased the E. 1/2 of the NW. 1/4 of the same section.

The storehouse for the National Supply Co. has been completed and Mr. Chase, the representative of the company, will assume charge here as soon as the company can get the supplies in town.

The Maine State Oil Co. had made arrangements to sublease from L. Nathan the portion of land he leased from the railroad company on section 7, but for some reason the railroad company objects to subleases by its recent lessees and the deal had to be cancelled.

The Southern Pacific Railroad Co. reserves all land not already leased on the west side of the field. This includes sections 31, 25, 23, 13, 7 and 1. The belief among the local oil men is that the company anticipates drilling on these sections for itself, all of it being proven oil land.

The Fresno-San Francisco Oil Co. has made unusually good progress on its No. 3 well until this week, when the well on the bottom joint of a string of 800 feet of 9 1/2-inch casing split in some heaving sand. The necessity of pulling the casing to replace the split joint has caused some delay.

The Caledonian Oil Co. is all rigged up for well No. 2 and expects to spud in the early part of the week. Mr. Armstrong, the rig builder, is making a record for himself by putting up rigs in quick time. He built the one for this company in a little over a week, and has put up as good a rig as there is in the field.

The tank builders for the Pacific Coast Oil Co. are at work on the tank on section 21, the last tank the company is building in this field for the present. The one on section 6 was finished a week ago. By the end of another week the main pipe line will be finished connecting Coalinga with the coast, and all deficient and inadequate shipping facilities will be obviated from now on.

The suspension of operations by the Union Oil Co. was due to a compromise between it and the Wabash Co. Both of these companies are located on section 24, 20-14, the NE. 1/4 on located land. At first it seemed as though a race down to the oil would be imminent, the Wabash having 600 feet made. The compromise is that the Wabash continue drilling and test the land, turning eighty acres over to the Union Oil Co. after receiving the title to the same.

At the present rate of putting down wells by the Twenty-eight Oil Co. and the Oil City Petroleum Co., they bid fair of becoming two of the largest producing companies in the field. Twenty-

eight Oil Co. has now two wells drilling and is getting ready to begin on a third, or No. 9. Work on No. 8 of the Oil City Petroleum Co. will begin at the completion of its drilling rig. Mr. S. Shannon is manager of both of these companies and also of the Fauna Oil Co.

Up to this time Coalinga and the oil field here has been without telephone connection with the outside world. All messages have to be sent by telegram, even to Fresno and Hanford. Mr. J. F. Williams, an official of the Sunset Telephone Co., assures us now that Coalinga and the oil fields will soon be connected by long distance telephone. The above-named company is now negotiating for the right of way to extend its line here, and the success will be of inestimable value to this field and the town.

### KERN

The California Crude Oil Co. is about to commence work on its second well, and a refinery is now being figured upon. The capacity and time of commencing work is not yet determined.

H. Pennington, president of the Grand Oil company, is in Bakersfield and will begin at once to push the work of drilling for oil on section 34, 12-21. Preparations have been made for putting down a deep well and the machinery is all on the ground.

The Webber Oil company, organized under the laws of the territory of Arizona, has filed articles of incorporation in the county clerk's office. The capital stock is \$375,000, divided into one-dollar shares, all of which has been subscribed. The extent of the liability of the company shall not exceed \$100,000. The directors are: A. A. Webber, H. F. Peart, Walter V. Doughty, E. A. Clausen and J. A. Marsh.

The new management of the Sunset Diamond Oil company has planned extensive improvements on its property at the terminus of the railroad at Sunset. The company has two very thrifty wells, but ten more will be drilled on the tract, and another improvement contemplated is the construction of a 20,000 barrel reservoir. The new work will be commenced at an early date and pushed to completion as rapidly as possible.

The Associated Oil company has now full and is keeping full all its tanks in the Kern River and McKittrick field which hold 600,000 barrels. This in spite of the fact that it is selling constantly oil in ever increasing quantities. In ten days it will commence filling its reservoir in the Kern River field which will hold 40,000 barrels. Next week the company will put two or three more rigs to work drilling wells along its boundary lines where other companies are putting down wells which are likely to tap its territory. These wells are not really needed, as the company already has a surplus of 5,000 barrels a day. When the new reservoir is completed the company will be pumping daily at least an average of 15,000 barrels.

Walton E. Dowlen left Bakersfield this week for Frank, Canada, the scene of the recent landslide and will be gone about three weeks. Mr. Dowlen has advice from the representatives of the American-Canadian Coal and Coke company on the ground to the effect that there are several hundred men at work on the railroad and mine and the road will be entirely repaired in about three weeks. All danger is now considered past and the people are recovering from

their panic. Mr. Dowlen would have gone to the scene of the disaster immediately upon the receipt of the news but for the fact that he had important matters to attend to in connection with the Sunset oil fields development work. This work has now been completed and the specifications for the material for the great pipe-line of the California Consolidated Oil companies are all ready, so he can now leave without endangering the matter he has charge of here.

The California Consolidated Oil company is now about completing its first well in the Kern River field. The well has reached a depth of 1,331 feet, and the drill has penetrated the oil sand so that at this writing there is considerable oil in the well. Some difficulty has been experienced from water, but the water is now shut off. A bailer is now lost in the well but the driller expects to fish this out by the end of the week if not before. The company fully expects this well to prove a good producer. The derrick is up for another well, and work on this well will be begun as soon as well No. 1 is completed. President Z. N. Goldsby visited the well last week, and returns with a very favorable opinion. The company has recently been completely reorganized, and has money in the treasury to pay all bills. The company has no indebtedness, and expects to be numbered among the big producers as fast as wells can be completed. The drill has already gone through about 100 feet of prolific oil sand. The company proposes to transact its business on business principles, and to pay as they go.

The Paraffine Oil company abandoned its well in the Temblor county several months ago at a depth of 1,700 feet, having reached the conclusion that the oil prospects were such as to condemn at least that portion of the country in which they were operating. The water stood in the casing to a point within 300 feet of the surface and only a very small showing of oil was in evidence. A few days ago, says the Californian, they decided to remove the casing from the well and as a test to determine the quantity of water in the hole the bailer was lowered. Instead of striking the water at 300 feet it dropped into the oil at 100 feet from the surface. Since it was only a water well at the time of its abandonment it was not supposed that the supply of oil would hold out for any length of time, but over 100 barrels were bailed out the first day and during the night the oil again filled the well to its old

mark. The well was bailed for some time afterwards, but the supply continued quite as large as ever. Instead of abandoning the well the water will now be cased off and the owners are confident that they will finish up a good producer.

### SANTA BARBARA.

Summerland oil men are complaining that the Southern Pacific company will not furnish them with cars to move their product.

### SARGENTS.

The drill of the new team of the Watsonville company is in hard formation and the work progresses slowly. Pumping continues at the flowing well across the creek and there seems to be no decrease in the volume.

The drill at the Alberta well is now at a depth of 360 feet in heaving sand that makes progress difficult and requires the driving of 8-inch casing at frequent intervals. As soon as this is penetrated, Mr. Chadwick expects to find a stratum of shale beneath which is supposed to lie the big body of oil that underlies that territory. Manager Snyder left last week to visit his family at Santa Barbara, but there is still a full force of men to operate the day and night shifts. This well, according to the indications, is the most promising, for the depth reached, of any hole that has been drilled in the Sargent district.

The first oil exploration work in the Sargent territory was in 1880, and was

## LOOK OUT

FOR THE

## SPECIAL EDITION

OF THE

## PACIFIC OIL REPORTER

ON THE OIL FIELDS OF

## WYOMING

To be issued on May 23rd.

Orders for advertisements should be sent at once to our Wyoming representative.

E. S. EASTMAN

Evanson - - Wyoming



We are organizing a gold mining company that we believe is one of the best propositions on the Coast. Small capitalization, 100 men with \$100 each to make a working fund that will easily carry the company to a dividend paying basis in a few months. Ground floor chance. About half already taken. Prefer men who put up only \$100 each, yet larger subscriptions will be received. When making inquiry send 10 per cent of your subscription, as this will go soon. If after investigation you do not want to join this new company as one of its charter members, your 10 per cent remittance will be returned in full.

A MINE, not a PROSPECT. One tunnel of more than 100 feet, with cross-cuts each way with small shafts at bottom, shows ledge widened from 14 to 30 inches; many different assays show average of \$194.32 per ton gold, small per cent silver. Second tunnel, 100 feet lower, will strike same ledge that will probably be four feet wide; also cut other ledges that show on surface.

Machinery, two-stamp mill, paid for, now being put in. 100 tons ore on dump. Mine developed so far by poor men. We will finance the company.

We believe this is an unusual chance. A fortune in it. Subject to investigation. If not satisfactory withdraw your money.

Mention this paper.



conducted by a Mr. Thayer. The drillers were Messrs. Massey & Barbour. The hole was near the "little tar spring," and was 560 feet deep. Oil sand was struck at 540 feet. The 6½-inch casing was driven into it with too much force and broke off two joints from the bottom, and the hole was in trouble immediately. W. E. Youle (now of Oakland), who represented Mr. Thayer, advised that the well be abandoned. Heavy oil and sand was forced up into the pipe, as in the case of the last two wells of the Watsonville Oil company. The territory lay idle in the matter of oil exploration until the Watsonville Oil company commenced work there six years ago. Its late discovery shows that the Sargent territory is one of the richest oil districts in California. Experienced oil men say that the sand through which the last well is passing is the richest which has been found on this coast.—Pajaronian.

John Martin, E. J. de Sabla and E. Fox, of San Francisco, spent last Saturday in the Sargent oil district and were in this city over night. These gentlemen are the principal owners of the Bay Counties Power Co., of the North Shore Railroad Co., and of several electric and gas plants in Central and Northern California. They are drilling for oil near Sargents on territory leased from the Watsonville Oil Co., the work being in charge of Col. E. J. Bean. They are going to drill, within six months, in several places in Hollister and San Juan districts, and at least one point on this side of the range—probably at the J. Winthrop place, adjoining John Hoover's, east of the San Jose road in Caserly district. Messrs. Martin and de Sabla are heavy buyers of oil for use in their manufacturing enterprises in and near San Francisco, and they propose to give the oil territory of this district a practical exploration with the hope that they will find oil in a sufficient quantity for their demands. They are much pleased with the discoveries of the Watsonville Oil Co. and believe that a big oil field is going to be developed in this district.—Pajaronian.

#### WYOMING.

A telegram was received Wednesday by Mr. J. A. Chanslor to the effect that oil had been struck by the American Consolidated Oil company at a depth of about 700 feet. The well will undoubtedly prove a big producer.

Michigan-Wyoming Oil Co. stock went from 35c to 50c a share on May 1st.

The American Consolidated Oil Co. struck a good showing of oil on Sec. 14, 15-118, on Monday. They are going deeper.

The Bettys Oil and Development Co. have added two more drillers to their force and are now working day and night tower.

The Atlantic & Pacific Oil Co. will be operating two new rigs by the first of next week. They are about 700 feet deep on Sec. 10, 14-118.

Crane company are contemplating the establishment of a branch house at Spring Valley to compete with the Oil Well Supply Co., who are now located there.

Two new tanks were installed at the Atlantic & Pacific well on Sec. 22, 15-118, commonly known as the "Ellis" well, this week. They are being filled with oil.

The Michigan-Wyoming Oil Co. have passed through the Foxhills formation, which, according to Prof. Daniels, lies 600 to 800 feet above the oil sands. They are now about 600 feet deep.

The storehouse of the Western Well Supply Co. at Spring Valley is nearing completion. A large stock of drilling machinery will be carried. This is a branch of the Oil Well Supply Co.

Messrs. James J. Hardin and J. H.

Price, general manager and field manager of the Jager Oil Co., reached here Saturday. They are to commence active development of their property at once.

George Kellogg, of the Kern river oil fields in California, was in Evanston last week. He is now making a tour of our field and is highly impressed with what he has already seen. He has decided to recommend that his associates invest in our coming industry.

A telegram from the Idaho-Wyoming Oil Co. announces that the company have increased their holdings from 6,000 to 15,000 acres of land, most of which lies in the Fossil Oil district. They are now sinking two wells and will do a large amount of development the coming season.

On Monday the American Consolidated Oil Co., who are drilling on section 14, 15-118, made a good showing in oil at a depth of 550 feet. This rig is in line with the Jager well, and experienced oil men say that good results will be obtained from this well before many weeks.

Messrs. Reiley and Cater, two expert drillers from the Kansas oil fields, are in Evanston to accept positions at the Bettys well, a few miles south of town. The gentlemen are well pleased with what they have already seen of the field. They say that the Kansas fields have proved a disappointment thus far and that many investors in that state are shaping their affairs to come into the fields of this county.

Two 250-barrel tanks have been placed near the Ellis well on section 22. Enough gas is obtained from this well to furnish the power with which to run the pumping engine. Those who are in a position to know say that this is a flowing well, which accounts for the secrecy that is maintained by its owners. After being pumped for a short time the oil flows rapidly into the casing and fifty or sixty barrels can be obtained without the use of the pump.

The annual meeting of the Medicine Butte Consolidated Oil and Gas company was held a week ago last Saturday, at which the following officers were elected for the ensuing year: Joseph Acocks, president; James Brown, vice-president; Charles Stone, treasurer; I. Kastor, secretary; which, together with Alex. Nesbit, comprises the board of trustees. The company increased their capital stock from 25,000 shares at \$100 to 368,500 shares at \$1.

#### For Dustless Tracks.

For a long time the California main line tracks of the Santa Fe and a portion of that road's trackage in Arizona, have been practically dustless, much to the delight of transcontinental travelers. This desirable state of affairs was brought about by using crude oil from the inexhaustible abundance of California's wells.

It is now stated that a dust-laying crusade will be inaugurated this summer by the Santa Fe on its Colorado line between Pueblo and Denver. Boulder oil, hauled in special tank cars, will be used.—Exchange.

#### Colorado Oil Field.

Eighty-two wells have been drilled or started in the Boulder, Colorado field up to February 1, 1903. Nine thousand barrels of oil were pumped prior to December 15, 1902. About 200 barrels a day were pumped January, 1903.

Subscribe for the PACIFIC OIL REPORTER.

#### A NEW TANKER.

The Steamer Argyll Leaves on Her First Trip to Honolulu.

On Wednesday the steamer Argyll left San Francisco for the Islands on her first trip as an oil carrier.

This steamer was formerly in the general freight and passenger business on the Panama run. She has just been transformed into an oil tanker for the Union Oil company and will henceforth carry oil from the Ventura and other supply points to the refinery and supply station at Oleum and will also run to the Islands and to whatever ports that are supplied by the Union Oil company.

The Argyll has a length of 360 feet, is 43½ feet wide, has a depth of 24 feet, and a total displacement of 9,000 tons. She carries in her tanks 30,000 barrels of oil, and can make the round trip between San Francisco and the Islands easily in twenty-two days. She is equipped with towing bits, and can take tank sailing vessels and freighters to any port, far or near. She can load her cargo of oil in ten hours, and unload in twenty-four. She loaded for this trip at Oleum.

At Ventura she will load from her anchorage by means of an eight-inch hose, supported in the water by floats. This method of loading and unloading vessels away from a wharf or at sea is the invention of Mr. John Baker, Jr., the sales manager of the Union Oil company who has had his invention patented. It will prove very valuable in the use of oil as fuel for steamers, and obviates the difficulties encountered in loading vessels with coal.

#### Indian Territory Asphalt.

At present the crude asphalt material is relieved of its surface covering by plowing and scraping, and, when thoroughly cleaned off, work is begun upon the deposit itself; but before it can be broken up and excavated a thin capping of barren or "bastard" sandstone must be removed, which is ac-

complished by drilling and boring (both operations to each hole, drilling through the sandstone and boring in the sands below, shallow holes 2½ to 3 feet), and blasting off the upper portion of the bed or capping. The broken up waste material is then collected and removed from the pit when work upon the asphalt bed is begun; the bed is loosened by plows drawn by four and six-mule teams and then excavated by wheeled scrapers. The scrapers are drawn by two-mule teams while in the pit, being assisted in taking the load by a third or snatch team. On emerging from the pit, the second team is removed and the load is hauled to the refinery by a single team. The capacity of a scraper is about one cubic yard.

It is claimed that the cost of excavating at the present time, in the comparatively small pits opened up, is in the neighborhood of 7 cents per cubic yard, which figure could be readily cut in two by opening up larger pits and employing some more economical means of transference of the material from the pit to the refinery.—Mines and Minerals.

#### BANKRUPT SALE.

OIL REFINING PLANT at Emeryville, including real estate, buildings, machinery, etc., ready for operation; 50,000 gallons oil; 122 tons asphaltum; 298 iron drums, and other property belonging to the estate of Mercantile Refining company, a bankrupt, offered at private sale.

Inventory can be inspected, and full particulars of terms and time of sale obtained at office of Referee in Bankruptcy, room 425, Rialto Building, S. F., and at rooms Board of Trade of San Francisco, 202 Market street.

## Oil Land FOR SALE

Fifteen hundred acres of land near Lompoc, and near the oil wells recently drilled in this district. This land contains the very best indications for oil.

For sale as a whole or in subdivisions.

Low price; favorable terms.

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318 Pine St., S. F.

None but principals need apply.

## California Combined Oil Co.

Is just completing its first well  
in the Kern River Oil District

Has the derrick up for well No. 2, which well will be begun as soon as well No. 1 is completed and perforated.

Other wells will be drilled at once, until this company is in a position to sell oil in sufficient amounts to pay regular dividends.

The company is organized on a basis of 1,000,000 shares, par value \$1. The company has a large acreage, located in the different oil districts.

A limited amount of treasury stock is now offered for sale at the rate of 25 cents a share. The company has no indebtedness, and pays its bills as they are incurred. Only 10,000 shares will be sold, and this will be used only for actual development work.

The officers are: Pres., Z. N. Goldsby; vice-Pres., Prof. J. T. Wallace; Sec., J. H. Edson; Treas., Central Bank, Oak'd.

Office: 1069 Broadway, Oakland, Cal.



**THE REAL QUESTION.****Will There be Oil Enough to Supply the Increasing Demand?**

Petroleum no longer needs a defender as a fuel or illuminant as compared with coal or gas. The many attempts to prove its superiority are merely redundant, for that was sufficiently proved long ago. It is now of chief importance to discover new sources of petroleum, as the demand is constantly outrunning the supply. Unless new fields are opened up on a large scale the present rapid expansion of the mineral oil industry will be seriously checked, says the Chicago Paint, Oil and Drug Review.

The report of the Edwards Oil Fuel Board of the Navy Department at Washington gives governmental sanction to the previously reported tests of oil as a railway and steamship fuel. For six months the board conducted a series of tests of oil fuel on locomotives. The deductions have been made from actual runs on the Boston & Maine and the Florida East Coast railroads. In each case the engine had its full rated tonnage to haul, and a thirty days' run was taken for the record. On the Florida East Coast railway, where the road was level, 6 3/4 gallons of oil was burned per engine mile; the oil weighed 7.55-100 pounds per gallon. The same work with Tennessee coal for

fuel resulted in 19.6 miles per ton of coal of 2,000 pounds. Under these conditions 132.3 gallons of oil equalled a ton of coal. The same engine on freight service, with a heavier load at lower speed, showed 10.6 gallons per mile run, and on coal thirteen miles per ton, or 131.8 gallons of oil per ton coal.

On the Boston & Maine, on the Hoosac Tunnel helper, running double head with coal burning engine, up grade forty-two feet per mile, and returning light, the engine used 11.45 gallons per mile. Oil weighed 7.75 pounds per gallon. Same engine burning coal ran 12.25 miles per ton of 2,240 pounds, and in this service 140.26 gallons of oil equalled one ton of coal. In this last test the engines were loaded as nearly equal as could be determined from freight records.

The expert in charge of these tests states that on the locomotive it was always possible to drive the engine to greater capacity with oil fuel than with coal, and with a smokeless fire, and says that he sees no reason why this cannot be done as well in the marine service, and with the work continued along lines following the Hohenstein boiler tests the proper proportions for furnace and boiler settings will be found. In a locomotive from 15 to 25 per cent of the coal is lost in smoke, unburned gases and cinders, which

go out of the stack by reason of sharp exhaust, and there is also a loss of fuel through grates.

On the general subject of the utility of oil as a marine fuel Sir Fortescue Flannery, connected with Marcus Samuel of the Shell Transport and Trading company, put the case very plainly when he said: "The practical figures of comparison between coal and oil fuel realized in recent practice are that two tons' weight of oil are equivalent to three tons' weight of coal, and thirty-six cubic feet of coal as usually stored in a ship's bunkers. In other words, oil as compared with coal gives 50 per cent greater range of action for a ship upon a fixed bunker weight, while the stowage gain—the coal bunkers filled with oil instead of coal—is quite 90 per cent. The wear and tear upon the boiler structure is probably less than with coal. Much of this wear and tear with coal is due to strains produced by the sudden and frequent in-rushes of cold air against the hot plates; this often results in leakage at the seams and ends of the tubes with small fractures of the boiler plates. These are almost entirely avoided by using oil fuel; the doors are never opened, and as the temperature remains practically even, there are no injurious contractions. In some cases, where constant trouble has been experienced with coal from these causes,

there has been a marked improvement when oil has been introduced."

These and other equally reliable authorities have declared so unequivocally in favor of oil for fuel that the petroleum question is now resolved into the problem of finding an adequate supply, and this is indeed a problem difficult of solution.

**Alleghany's Flowing Wells**

So far as the writer knows there are only two flowing oil wells in the Alleghany oil field to-day. One is located on the Charles Phillip's lease at Nile and has flowed for over twenty years and the other is located on the Sternberg farm at South Bolivar and is owned by A. C. McDonnell of Bolivar—Bolivar Breeze.

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Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

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IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY****470-471-472 Parrott Building****SAN FRANCISCO, CAL.**



**OILED ROADS A SUCCESS**

**Those in the Vicinity of Sanger Are Very Satisfactory.**

Those who doubt the efficiency of oiled roads for both winter and summer, especially for general teaming, should inspect the roads about Sanger that have been graded and oiled during the past winter, says the Sanger Herald. In fact, they are far superior to any seen in Fresno city or elsewhere, where they have worked them over several times in hopes of getting a hard roadbed that would turn the water during the wet season, but without success, for the reason that they were improperly graded in the first place, and then the oil was not applied at the right time and in the right manner. The roads around Sanger are about as near perfect as one can find in this county. A representative of the Yosemite Stage and Turpike Co., who had inspected the oiled streets in Los Angeles, Bakersfield, Fresno and other places, pronounced the main street of Sanger the best stretch of oiled road he had seen in his travels. His company is about to oil the stage road from Raymond to Yosemite Valley, hence his anxiety to learn as much as possible on this subject. We feel proud that he paid such a high compliment to the work of road overseer Agee and Supervisor Mitchell and determined to adopt

their modus operandi of oiling the roads, besides building a counterpart of the big sprinkler which was manufactured at D. R. Evinger's Sanger agricultural works. There are nearly twenty miles of oiled roads in this district, and it is the intention of our supervisor to increase this by ten miles within the next few weeks. The average cost of oiling the country roads hereabout is about \$200 per mile. As fast as the funds are available the road work will be prosecuted along these latest improved lines.

The Herald's faith in oiled roads has never wavered. It recognizes the fact that this method of road-making is now past the experimental stage, and future work is bound to result in a great improvement of our highways, and although it costs like smoke, it is the best and cheapest in the end.

**Flashing Point of Oil.**

When the vapor from illuminating or other oil is mixed with air, the mixture will not explode until the proportion of vapor to air has reached a certain amount that varies with the nature of the vapor, says W. S. Franklin in his notes on "Elementary Mechanics." Thus, one part of acetylene to twenty-five parts of air is an explosive mixture, while a much larger proportion of gasoline vapor is necessary to produce an explosive mixture. Thus, the air in

a vessel containing also some volatile oil, like kerosene, soon becomes saturated with the oil vapor, and, if the temperature of the mixture is slowly raised, the proportion of oil vapor increases until at a certain temperature the saturated oil becomes explosive. This temperature is known as the "flashing point" of the oil. An oil to be safe for use in lamps must have a high flash point, and the law requires that the flash point of commercial kerosene shall be above a minimum temperature.

With proper care most anyone may determine the flash point of ordinary oils. The oil to be tested should be placed in a tin vessel having a lid that fits closely but also loosely over the top of the can, and care must be taken to get no oil on the outside of the can or cover. Have a flat board handy, so that if the oil should take fire the flame can be smothered by removing the cover and placing the board close over the top. The lid for the can should have two holes, through one of which a thermometer with the scale etched directly on the glass is placed. The thermometer is used to indicate the temperature of the oil. Let us suppose that kerosene is to be tested. Fill the can about half full of oil and slowly warm it. For this purpose an iron tripod stand and a Bunsen burner turned down low is most suitable. The lowest tem-

perature of the oil is to be observed, for which the enclosed mixture of air and vapor flashes when a lighted taper is applied to one of the holes in the lid. To determine this point for kerosene, watch the thermometer until it reaches about 50° C. or 122° Fahrenheit, then apply a lighted taper at the opening in the lid. If the vapor does not flash, continue to heat it slowly until it does. Note the temperature of the oil when it flashes. Then remove the source of heat and apply the lighted taper every time the thermometer drops 3° C. or 9° Fahrenheit, until the flashing ceases. This gives the lowest flashing point.

The determination of the lowest temperature at which air saturated with an oil vapor will flash is a tedious operation, inasmuch as the vessel must be heated very slowly, in order that the enclosed air may be continually saturated. In commercial testing, a vessel of standard size is heated at a somewhat rapid rate by means of a lamp of standard size dimensions, and the temperature of the oil at which flashing first occurs is the commercial flash point.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

# 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

# Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

**Treasury Stock, - - \$350,000**

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Proven oil lands in Napa and Coalinga for sale cheap.

**AGENTS WANTED In All Large Cities for the Sale of Our All Refined Asphaltum**



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, May 13th:

AZTEC.		
500 at	70	\$ 350 00
CARIBOU.		
75 at	80	60 00
500 at	82 1/2	412 50
FAUNA.		
2,500 at	05	125 00
FOUR.		
700 at	70	490 00
100 at	73	73 00
500 at	74	370 00
FULTON.		
100 at	2 75	275 00
HANFORD.		
5 at	117 00	585 00
5 at	120 00	600 00
INDEPENDENCE.		
3,000 at	15	450 00
17,700 at	16	2,832 00
2,000 at	16 (S 90)	320 00
17,900 at	17	3,043 00
1,000 at	17 (B 5)	170 00
3,000 at	17 (B 10)	510 00
JUNCTION.		
1,950 at	06	117 00
KERN RIVER OIL.		
100 at	4 40	440 00
LION.		
11,500 at	06	690 00
1,600 at	05	80 00
3,000 at	06 (B 30)	180 00
1,500 at	06 (B 90)	90 00
MONARCH.		
500 at	55	275 00
300 at	56	168 00
50 at	57	28 50
350 at	60	210 00
1,350 at	61	823 50
700 at	62	434 00
MONTE CRISTO.		
100 at	1 15	115 00
200 at	1 17 1/2	235 00
1,100 at	1 20	1,320 00
200 at	1 20 (B 60)	240 00
100 at	1 20 (B 90)	120 00
300 at	1 22 1/2	367 50
1,000 at	1 25	1,250 00
OCCIDENTAL OIL.		
1,125 at	20	225 00
1,000 at	20 (S 90)	200 00
3,200 at	21	672 00
500 at	21 (B 10)	105 00
500 at	21 (C)	105 00
1,358 at	22	298 76
500 at	22 (B 90)	110 00
4,000 at	22 (S 30)	880 00
1,000 at	22 (C)	220 00
2,000 at	23	460 00
4,000 at	23 (S 30)	920 00
6,900 at	24	1,656 00
500 at	24 (S 90)	120 00
500 at	24 (B 10)	120 00
1,000 at	24 (S 30)	240 00
500 at	24 (B 90)	145 00
OIL CITY PETROLEUM.		
2,400 at	31	744 00
1,000 at	31	320 00
PEERLESS.		
60 at	15 50	930 00
REED CRUDE.		
3,000 at	30	900 00
450 at	31	139 50
1,000 at	32	320 00
SOVEREIGN.		
500 at	42	210 00
500 at	42 (B 5)	210 00
STERLING.		
20 at	3 15	63 00
50 at	3 20	160 00
100 at	3 20 (S 90)	320 00
100 at	3 25	325 00
1,000 at	3 30	3,300 00
THIRTY-THREE.		
100 at	8 50	850 00
TWENTY-EIGHT.		
200 at	3 90	780 00
100 at	3 95	395 00
400 at	4 00	1,600 00
65 at	4 05	263 25
100 at	4 10	410 00
50 at	4 10 (S 30)	205 00
100 at	4 20	420 00
50 at	4 25	212 50
115,413 Shares,	Amount,	\$37,323.01
FISHER R. THEATRE CO.		
400 at	3 25	1,300 00
HUTCHINSON-SUGAR.		
10 at	15 12 1/2	151 25
410 Shares	Amount	\$1,451.25

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma	1.45	.....
Apollo	40.	.42
Asso. Oil Co Stk. Tr.		
Certificates	.....	.30
Aztec	.70	.75
Bear Flag	.05	.15
California Standard	.13	.15
Caribou	.80	.90
Central Point Con.	.....	.80
Chicago Crude	.....	.23
Clairmont	.30	.35
Esperanza	.70	.....
Fauna	.....	.09
Four	.72	.....
Fulton	2.75	.....
Giant	.....	.25
Hanford	117.00	122.00
Home	2.70	2.75
Homestake	.....	5.00
Imperial	.18	.....
Independence	.15	.17
Junction	.06	.07
Kern	4.40	.....
Kern River	.....	13.50
Lion	.05	.06
Monarch of Arizona	.53	.....
Maricopa	.07	.....
Monte Cristo	1.05	1.15
Nevada	.20	.50
Occidental of West Va	.20	.22
Oil City Petroleum	.34	.33
Peerless	15.50	16.00
Petroleum Center	.....	.07
Pittsburg	.45	.....
Reed Crude	.33	.....
S. F. & McKittrick	2.50	.....
San Joaquin O. & D.	4.75	5.00
Senator	.55	.70
Shamrock	.24	.....
Sovereign	.42	.43
Sterling	3.25	3.50
Superior	.04	.....
Thirty-three	8.25	.....
Toltec	.15	.....
Twenty-eight	4.20	4.50
Union	.....	64.00
United Petroleum	.....	118.00
West Shore	3.00	3.50
Western Petroleum	.10	.....
Wolverine	.....	.52

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## For Sale

One No 9 Keystone well drilling outfit complete. Also one water wagon, one cart and harness. Property may be seen at the warehouse of A. H. Fredson, Tres Pinos, Cal. For terms apply to Geo. C. Sargent

71-74 Crocker Bldg., San Francisco

## DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON APRIL 27, 1923, declared a dividend, No. 14, of fourteen (14) cents per share, payable June 1, 1923. Books close May 26, 1923.

GURDON BRADLEY, Assistant Secretary.

If You are going East call at the

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Ar. St'kton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p	.....	1:28 p
" Fresno	3:20 p	3:00 p	.....	3:15 a
" Hanford	5:00 p	3:51 p	.....	7:50 a
" Visalia	4:48 p	.....	.....	5:00 a
" B'kfield	7:10 p	5:50 p	.....	7:35 a
" Kan. C.	.....	2:31 p	.....	8:02 a
" Chicago	.....	2:15 p	.....	8:47 p

a for morning; p for afternoon.  
8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.  
9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.  
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.  
8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.  
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A Perfect Protection Against Insect Pests



Adopted by the United States Government as the Standard for use in the army.

Over 150,000 of these nets sent to the Philippines.

Invented for and in general use in mosquito-infested Alaska.

Folds up compactly and goes easily into the pocket.

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This Company has been established eleven years and has agents, brokers or own offices in the principal cities of America and Europe. Entire stock issues taken over for sale. Companies incorporated under the laws of any State. Stock issues underwritten and guaranteed by gold bonds. Reports on mines furnished in French, German, Spanish or any European language. Special facilities for preparing maps for publication in prospectuses, newspapers, etc. We do our own work. Money loaned and interest bearing or dividend-paying investments furnished. Strictest confidence observed. Inquiries attended to. Bank References. Prospectuses of a superior and attractive kind prepared without charge for the literary work to companies placing their stock sales with us. Mining, industrial and agricultural projects wanted. Prompt attention to all correspondence. Send for sample copy of the "Pacific States Investor," an up-to-date financial paper, with rapidly increasing circulation in the United States, Canada, Mexico and all parts of Europe.

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326 Post St.,  
San Francisco, Cal.

## MAPS OF THE KERN RIVER and COALINGA OIL FIELDS

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Absolutely  
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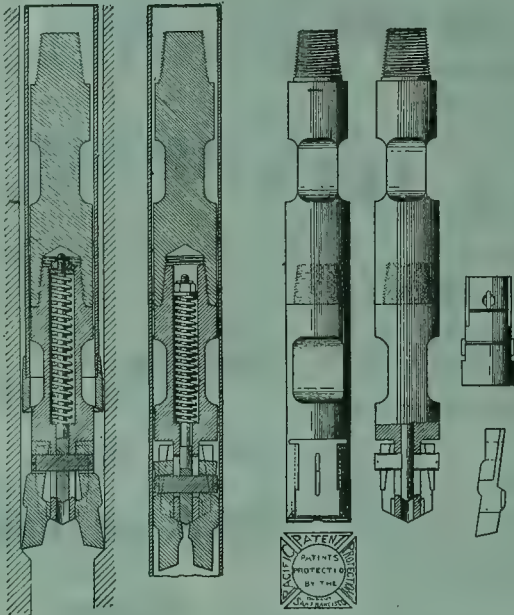
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 29.

SAN FRANCISCO, CAL., SATURDAY, MAY 23, 1903.

Price 10 Cents.

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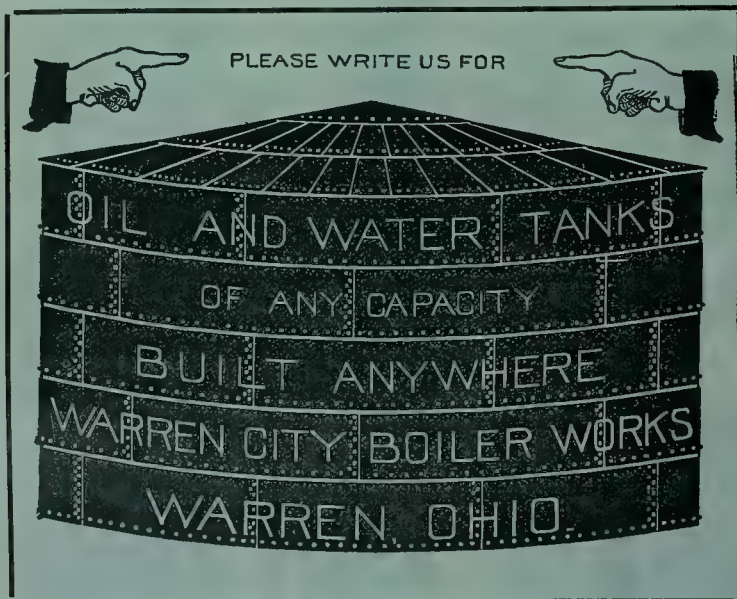
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Francisco. We also ship it to  
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We can AT LEAST meet any quotation  
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# PACIFIC OIL REPORTER

VOL. 4. No. 29.

SAN FRANCISCO, CAL., SATURDAY, MAY 23, 1903.

PRICE, TEN CENTS.

## THE AZTEC OIL COMPANY.

One of the Most Successful Companies of  
the Kern River Field.

Has Eighty Acres of Proven Oil Land in the Kern  
Field, and Has Just Declared Its Twelfth Divi-  
dend of Two Cents Per Share.

The Aztec Oil company has good producers, and all but the  
just declared its twelfth dividend, wells of the Four Oil company

in a circular that "After a careful  
estimate of our income for the  
year it looks as though we would  
be able to continue the payment  
of a two per cent dividend every  
sixty days for the balance of 1903,  
making a total of twelve per cent  
which the stockholders will receive  
on the par value of their stock for  
the year."

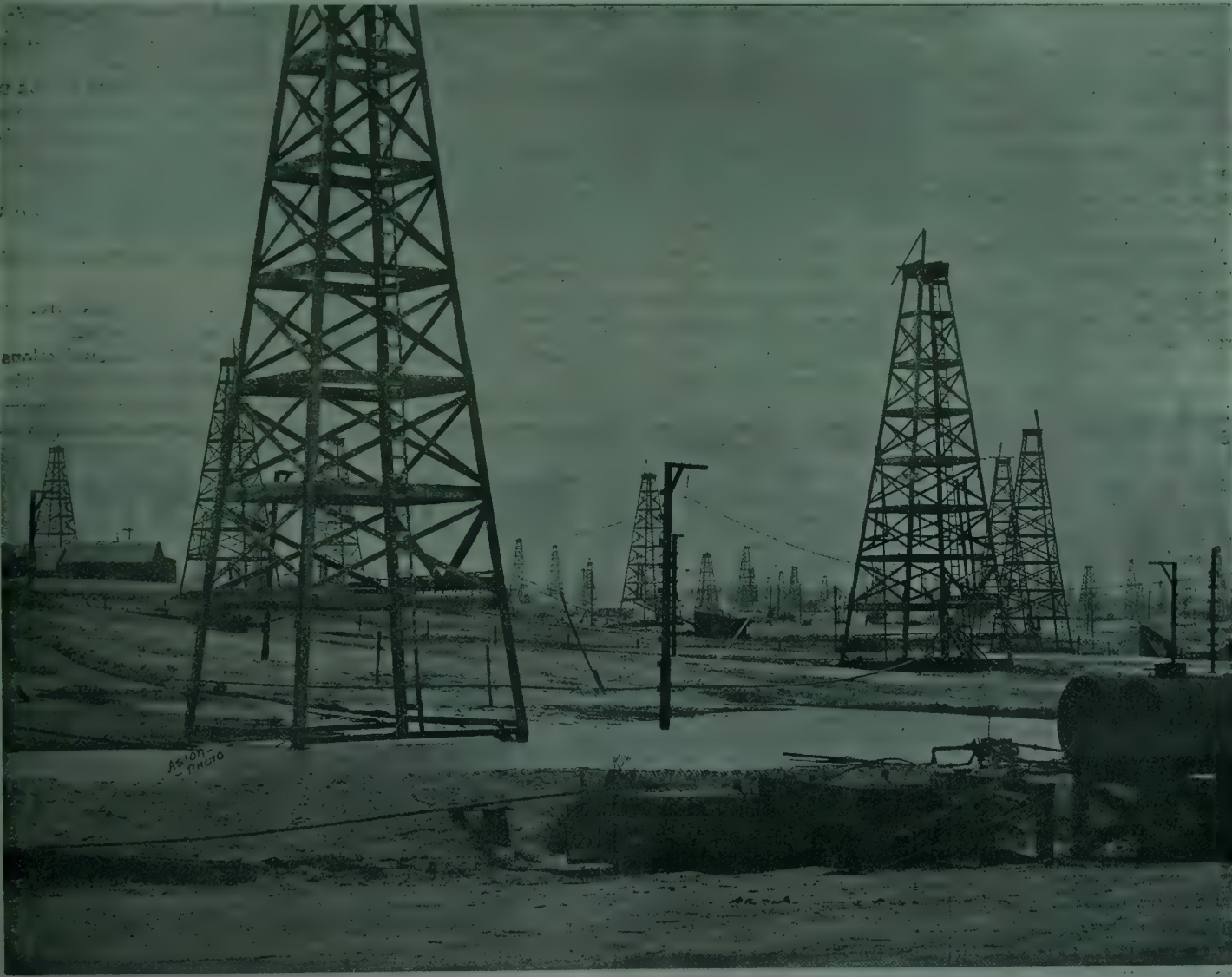
The officers and directors of the  
Aztec are Admiral F. C. Prindle,  
president; G. K. Wendling, vice-  
president; W. E. Palmer, secre-  
tary and treasurer; W. H. Turner,  
W. S. Porter.

In a recent circular issued to

ket value than it has at the present  
time."

The last balance sheet is as fol-  
lows:

RESOURCES.	
Cash in bank .....	\$ 4,988.82
Dividends paid.....	61,100.00
Producers O. S. and T. Co....	2,719.70
Associated Oil Co. C. and C. contract.....	28,297.03
Stock of Associated Oil com- pany.....	645,552.90
Bonds of Associated Oil com- pany.....	43,834.00
Expense.....	411.82
Total.....	\$786,903.37
LIABILITIES.	
Capital stock.....	\$235,000.00



Wells of the Aztec Oil Company, one of the best companies of the Associated Oil Company, in Kern River District.

being 2 cents a share on its issued  
capital stock, and amounting to  
\$4,700. This is a total of 30 per  
cent paid to stockholders in two  
years.  
The property owned by the  
Aztec is one of the best in the  
Kern River field, and is one of the  
best properties acquired by the  
Associated Oil company. It con-  
sists of eighty acres of proven oil  
land, and is located on section  
28-28, being the west half of  
the northwest quarter. The land  
is surrounded by the wells of the  
following companies, all of them

being the property of the Asso-  
ciated Oil company. On the north  
are the wells of the Kern Oil com-  
pany and the Reed Crude, on the  
east, Four Oil and Wolverine, on  
the south Knob Hill, on the west  
the San Joaquin.  
The company has now eight  
producing wells, tankage for over  
20,000 barrels, a complete pump-  
ing outfit, and is in fact ready in  
every particular to cope with any  
demand for oil that the rapidly  
increasing consumption of oil may  
occasion.  
Last week the company stated

the stockholders Secretary Palmer  
concludes as follows:  
"In conclusion, I would like to  
say that in my opinion during the  
year just past the oil business has  
touched bottom, and I believe that  
from now on it will show a steady  
improvement, as it has done in  
the last month or two, and with  
the proper management of the  
affairs of the Associated Oil com-  
pany there is no question in my  
mind but what their bonds owned  
by this company should soon be  
worth par, and also their stock  
should have a much greater mar-

Profit and loss..... 550,807.52  
Interest collected..... 1,095.85  
Total..... \$786,903.37  
The Aztec was incorporated in  
June, 1900. The company is in-  
corporated for 250,000 shares, of  
which 235,000 are issued. The  
par value of the stock is \$1 and  
the stock is quoted on the Cali-  
fornia Stock and Oil Exchange at  
75 cents. Considering the num-  
ber of acres owned, the extent of  
its development, and the dividends  
the company is paying and will  
continue to pay the stock ought  
to be worth much more than 75  
cents.



## SCRIPPERS DEFEATED.

### United States Supreme Court Decides in Favor of the Oil Men on All Points.

#### Prior Holdings Under the Mineral Land Laws Are Good as Against Claims of Those With Forest Scrip.

On Monday of this week the United States Supreme Court rendered final judgment in the long-fought "scripper" case of Clarke and others against the Kern Oil company, and other cases involving the same questions and rights. The Kern Oil company and other mineral proprietors are confirmed by the judgment in their ownership of oil lands against the claims of Clarke and others, who, by filing entry, sought to take up the lands as agricultural lands, in lieu of forest lands which they gave up. The decisions of the lower courts and of the Secretary of the Interior and Commissioner of the General Land Office are confirmed.

The case came to the Supreme Court on appeal from the Supreme Court of the District of Columbia, to which the so-called "scrippers" made application for a mandamus, seeking to have the court order the Secretary of the Interior to reverse the decision he had rendered on the merits of the case. The court held that the Secretary of the Interior was authorized to render such a decision and that he had done so in pursuit of a judicial function vested in him. The court declined to go into the merits of the case or to overrule the Secretary. The case was then appealed to the appellate court, where judgment was confirmed. Now the Supreme Court backs up the appellate court.

One important point finally settled by the case is that petroleum lands are mineral lands under the mining laws of congress. Another is that a ruling of the Interior Department in such cases is not open to review except fraud be alleged.

The Supreme Court also decided the case of the Cosmos Exploration company versus the Gray Eagle Oil company, and the Pacific Land company versus the Elwood Oil company, both cases involving title to oil lands in Visalia land district in California. The opinion affirmed the decision of the Circuit Court of Appeals for the ninth circuit.

These cases involve the general question as to the validity of locations made on mineral lands in lieu of non-mineral lands surrendered within the limits of forest reservations. The Pacific company and the Cosmos company claimed under the locations of

this character, and sought to oust oil companies claiming the lands under the placer mining laws.

The Court of Appeals decided that the petitions did not contain facts sufficient to justify the relief asked for, and, accordingly decided in favor of the companies and that action was affirmed by the Supreme Court.

The court decided also a proceeding by the Riverside Oil company against Secretary Hitchcock, involving practically the same issues. This case was first heard by the Supreme Court for the District of Columbia and was an effort to compel the secretary to issue a patent to lands located in lieu of forest reservation lands.

The trial court refused to issue such an order, and that decision was affirmed to-day.

#### IT MADE AMENDS.

##### The Chronicle Hastens to Change Its Pipe-Line Information.

After having on Tuesday knocked the Bakersfield pipe-line all it could, on Thursday it published an editorial headed "Knocking the Oil Pipe-Line", in which it sought to change the impression conveyed in Tuesday's article that the pipe-line was a failure. The editorial was as follows:

The "Chronicle" cannot share in the misgivings which are disturbing the minds of those who speculate in Kern county oil stocks over the delay in the operation of the Standard Oil company's pipe-line, which has been laid to carry the product of the oil fields from Bakersfield to Point Richmond. The construction of the line was finished some time ago, and because the oil did not immediately flow into the Point Richmond tanks where it is to be delivered, the cry was raised by the "knockers" that it was a failure. Apparently studied efforts were made in some interested quarter to discredit the enterprise. The motive for doing so is as difficult to understand as is the latest assumption that the corporation, which has invested over \$2,000,000 in the work, is deliberately proving the non-success of its investment for the purpose of bearing the prices of land in the oil field so that it may acquire them itself. The suggestion is too absurd to be seriously considered.

The delay in the operation of

the pipe-line is due entirely to natural causes incident to the newness of the plant and the character of the material to be carried by it. This has been previously explained by those in charge of the enterprise. Defects in construction, which were not unexpected, are revealing themselves all along the line, and are being corrected as soon as they show themselves in the passage of the stream of oil. The gravity of the latter is, moreover, greater than any similar product carried by any other pipe-line in the country. Its flow is therefore slower. Furthermore, the pipe-line and each of the tanks at the various pumping stations along the route must all be filled before the oil can flow at Point Richmond, and it will take a vast volume to fill an eight-inch main over 300 miles in length, without considering the stock which the tanks must carry to keep the stream moving uninterruptedly. According to official reports no difficulties have been encountered that cannot be overcome without serious trouble. The "knocker" will, however, continue to doubt the success of the enterprise until the oil begins to flow from the outlet of the pipe-line, and even then he may give expression to misgivings about the permanency of its operation. He is never happy except when forecasting evil in some form or other.

#### Oil in Montana.

With the coming of spring, interest in the oil fields of Flathead county, Montana, as well as those on the east side of the range, is reviving, and the outlook for much work is encouraging. There will be at least three companies actively engaged in sinking wells in Flathead county, and probably the same number on the east side. In the Kintla lake fields the companies that will sink wells will be the Butte Oil company, the Kintla Lake Oil company, and the Pacific Oil company. The latter is composed largely of Kalispell people, who have as yet taken no active part in drilling operations. Their drilling apparatus, or at least part of it, arrived at Belton some time ago and is now being hauled in.

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# UNLOADING OIL AT SEA.

## Pumping Oil From a Vessel to the Land Through a Line of Submerged Hose.

### An Important Invention By Means of Which Vessels Can Be Loaded and Unloaded at Sea With Liquid Fuel Without Difficulty.

The accompanying pictures represent the Union Oil company's barkentine Fullerton unloading and it is also an easy matter to load a ship at sea from another vessel. By means of this contriv-

tug without difficulty, and the tug's tanks can be refilled quickly in any sea.

Mr. Baker has obtained a patent on his invention, which promises to soon be put into general use on all vessels which may require their tanks to be filled with oil, either at sea or at difficult landing places on the coast.

#### Oil in Salt Lake Valley.

Captain A. F. Lucas, the man who drilled the first oil well in the Beaumont oil district, is reported to have formed a syndicate for the development of oil in the valley of the Great Salt Lake. It is said

city have been drilled near the Great Salt Lake, but the product came from a shale formation, which showed no great capacity for holding the volatile substance at any great pressure. These wells created some excitement a few years ago, but were speedily exhausted, and proved a losing enterprise to their owners. The geological experts declare that oil will be found in enormous quantities at a depth of 4,000 feet beneath the surface. It is stated that nearly 60,000 acres have been secured between Salt Lake city and Promontory and that a test well will be started within a few weeks. J. M. Guffey and John Galey, of Pittsburg; Governor Frazier, of Tennessee; Attorney General Bell, of Texas, and several members of the Hogg-Swayne syndicate are behind the enterprise, and Captain Lucas will be the field manager. Twenty wells will be drilled in the efforts to find and develop an oil field in Utah and make Salt Lake city the headquarters of a great oil development. The flats along the Jordan river may one day be dotted full of oil derricks.

#### Texas Refining Oil.

The Corsicana Refining company of Corsicana, Texas, has posted a notice advancing the price of light crude petroleum to \$1.08, but the price of heavy oil still stands at 50 cents, although a considerable advance has been predicted. The 30-cent price is that set by the refining company, but there are local producers who



The Fullerton unloading oil through a submerged hose at the Hawaiian Islands. The line of floats support the hose through which the oil is pumped.

oil at Kihel, on the Hawaiian island of Maui.

At this port the water is too shoal to allow a vessel drawing as much water as the Fullerton to approach the wharf. Consequently the oil must be unloaded either by lighters or by some other means.

After studying the situation Mr. John Baker, Jr., sales manager of the Union Oil company, had a linen hose made eight inches in diameter and covered with a waterproof covering. This pipe, or hose, is made in lengths and is easily coupled, so that it can be made as long or as short as may be found necessary. This hose is taken from the vessel to the wharf, and is buoyed up in the water by floats, which keep it above the bottom of the ocean and yet allow it to be so submerged that it is in no way effected by the surface action of the waves.

The line of floats can be seen in the picture.

By means of this hose a ship can be loaded or unloaded at any point where landing is difficult,

ance an oil burning tug can tow a vessel any distance, provided the vessel carries a supply of oil, which can be pumped from the vessel to the tug whenever the tug's fuel supply runs low. In this way a powerful tug can make long tows which would be impossible with coal, on account of the

that nowhere in the country are the geological conditions so nearly identical with those of the famous Russian oil fields on the shores of the Caspian sea as in the immediate vicinity of Salt Lake city. The Caspian is an immense inland sea, many times larger than the Great Salt Lake, and the ex-



View from the Fullerton looking toward the Hawaiian Island of Kihel. The large oil tank of the Union Oil Company is seen in the center of the picture.

impossibility of the tug's carrying enough coal to last for a long tow. With this arrangement oil can be pumped from the vessel to the

istence of oil and natural gas on its shores were known centuries before the discovery of America. A few gas wells of limited capa-

are filling orders at 85 cents and orders for large quantities of the heavy grade are received almost daily.

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Determines  
the  
Quality

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**CABLES**

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**Oil Well Supply Co.'s**  
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The  
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Quality



## IN ROUMANIA.

### Association Formed to Look After Welfare of Oil Industry.

The oil producers of Roumania have formed an association to look after the welfare of the petroleum industry of that country. It has rounded out the first year of its existence and now includes ninety per cent of the petroleum producers and refiners in the Roumanian oil fields. The report of the Executive committee contains many novel suggestions and tends to show that the same problems that have confronted American oil producers from time to time are common in nearly all countries where petroleum has been found in commercial quantities. The names of the members of this Executive committee will prove of interest to American oil men. They are Messrs. C. Alimanes-tian, Luca Elefterescu, Bogu Stefanescu, and Max I Schapira; while Mr. Nicolas Mancas, the editor of the Moniteur des Interets Petroliferes Roumains, is the secretary.

With an array of names like the above something positively beneficial to the Roumanian oil industry was certain to be accomplished. The needs of the industry, according to this committee, are so great and so numerous that only a union of all the producers could ameliorate the position and after a minute examination of the situation it was decided that the general principles upon which a commercial organization of this character should be based in order to carry out the sale of crude petroleum throughout the whole country, was by means of a committee, elected by the members and under the moral and material guarantee of powerful financial support. This scheme was finally agreed upon after several meetings of the oil producers had been held at Bucarest and Ploesti.

It is stated that although the objects of the combination have not been practically realized a great deal has been accomplished in stimulating the development of the oil fields and preventing prices from falling lower than they have done. The committee has also turned its attention to increasing the consumption of Roumanian petroleum by extending the use of liquid fuel throughout the country and inducing towns and cities to use it for lighting purposes. Strong efforts are being made to promote the adoption of the fuel in government and private establishments.

One of the peculiar things recommended by this committee is the establishment of a "school for bore-masters"—that is a place for training oil well drillers. This is something entirely new in this country whose drillers learned their skill in the great out-door

school of practice and are justly regarded as the best in the world.

Some of the other questions to be studied by the committee include that of the establishment of a course on mining at the School of Bridges and Roads, the best engineering college in Roumania; the question of the future petroleum congress, and of the export of petroleum products, while they will also devote attention to all technical and scientific questions touching upon the industry, which may contribute to the more economical exploitation of the oil fields. The committee is also engaged in endeavoring to reduce the railway rates on petroleum products into Austria and Germany and will study American methods for marketing their oil. A proposition to sell the product of the entire oil field to an American syndicate was under consideration a few months ago but nothing came of it.

The outlook for the industry the present year appears more encouraging although the oil producers of Galicia are endeavoring to prevent Roumania from marketing its oil in Hungary. Under the existing treaty Roumanian crude is allowed to enter Hungary to the extent of 20,000 tons per annum at a reduced import duty. In view of the large increase in the production in Galicia, the producers of that country are endeavoring to induce the government to withdraw the new treaties from Roumania, so as to be able to supply their crude oil to Hungary instead, and the association considers it their duty to use every effort to maintain and increase this quantity, especially as Hungary has important interests to protect in Roumania.

At the same time negotiations are under way for the formation of a syndicate of oil producers in Austria-Hungary. The proposition is to grant producers a certain portion of the profits out of the prices realized for the refined article. There are numerous difficulties in the way of this plan, the principal one being the demands by certain firms for a larger participation in the output to be controlled by the combination. All of which go to show that the foreign oil producer has his troubles as well as others.—Oil City Derrick.

The Rock Oil company can now boast of the largest well in the vicinity of Montpelier, Ind., that has been struck for some time. It is on the Woodard farm, three miles west and one mile north of Koll. It made 225 barrels the first day. A few days ago time was kept on it to see how long it would take to pump 100 barrels, and in exactly five hours that many barrels were made. More wells will be drilled at once on that farm.

## THE PUMP'S THE THING.

### Well and Pump vs. the Irrigating Ditch.

A gentleman who has large interests near Tulare, and who is deeply interested in the development of the country tributary to this city, said to the editor of a San Joaquin valley paper that the inadequate rainfall of the past season would in the end prove beneficial in that it would stimulate the boring of wells and the establishment of pumping plants.

It is a fact that might as well be recognized by every farmer in the country, for there is no getting around it,—that the day of the pump is at hand. No one who thinks at all will contend that pumps will furnish all the water needed for the development of our agricultural resources, but that means of providing water will serve as a saving auxiliary to the supply received from overhead. The pump will fill in the gap between the water we now get and the water we need.

The man who has a good pumping plant is dead certain of profitable returns year after year, while the man without one is taking chances and worrying himself gray and wrinkled over the probabilities of a dry year.

Those who have already had a

season's experience with a power pumping outfit ought to be able to speak with some authority and deserve to have some credence given to their statements, and without exception the reports of such persons have been in advocacy of the pump. There is an abundance of water not far below the surface and it isn't doing any particular good down there. It costs something to put in a plant that will lift it out upon the soil, but the returns pay a big interest on the investment.

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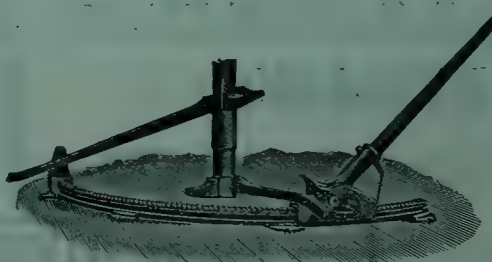
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## LOST THEIR CHANCE.

**How Eastern Oil Men Have Neglected to Better Themselves.**

There is no place in the world that has been so systematically looted as the oil region. Rockefeller and his band of commercial buccaners who were sufficiently astute to recognize the great possibilities of petroleum have, by methods characteristic of themselves, succeeded in plundering the oil regions as no section of the world was ever plundered. The fault is with the oil producers. Had they been able to see an inch ahead of their nose and put themselves in position to have transported and refined their own product the wealth that has gone into the coffers of a few pirates would have been distributed among the owners of oil production instead of being the most subservient, the people of the oil region would have been the most independent. Instead of being the slaves of one man, working with might and main that he may be further enriched, the oil producers could have had the world at their feet. Lack of foresight, lack of confidence in each other, susceptibility to bribery and failure to organize has caused the oil region to become what it is and the oil producers to become the tools of the greatest set of pirates and stock gamblers the world has known.

Education seems slow, but there is evidence that the arbitrary prices and methods of the Standard are teaching Dan O'Day's pumpers to act for themselves. Should it become possible that they suddenly awake from their long Rip Van Winkle-like-trance and decide that they will share in some of the profits besides their meagre allowance from their production, the condition of the oil regions will be made materially better. The Standard Oil company fix prices for high grade oil much below the value and this fact seems to be arousing the producers to action. Once get away from absolute subservience to the pirates of the Standard Oil company, and decide to produce transport and manufacture their own products by organizing companies of financial strength composed of men who are above selling their birthrights for a few paltry dollars, then and not until then, will there be some hope.—Sistersville Review.

### Fuel Oil Burners.

An interesting feature of the final report of the Edwards Oil Fuel Board of the navy department will be a discussion of burners and a general classification of all devices thus far submitted to the board's inspection, and which it is estimated number more than 2,000. All these burners the board group under five general classes, as follows: First,

drooling burners; second, atomizer burners; third, chamber burners; fourth, injector burners, and fifth, projector burners.

In the drooling type the oil is permitted to flow by gravity or under slight pressure over the mouth of the steam jet, by which it is atomized. In the atomizer type the oil is fed by gravity or slight pressure through a tube parallel with the steam jet and sprayed as in the common atomizer. In the chamber type an attempt is made to vaporize the oil with the steam in a chamber before forcing it into the fire. In the injector type the oil under pressure is forced out though the center of the steam jet. The projector type is a modification of the injector, the mouth piece being so constructed as to impart a fan shape to the resulting spray. Each of these five classes is susceptible of hundreds of variations dependent upon the size, form and arrangement of the oil and steam jets, but the board are satisfied that all the burners now in use can be brought under one of these classifications.

### Rockefeller's Income.

The other day two of the profitable monopolies owned by John D. Rockefeller sent out dividend checks aggregating \$21,500,000. Of the total amount \$20,000,000 represents the Standard Oil dividends for the second quarter of the year, being \$20 for each share of the \$100,000,000 trust, while \$1,500,000 was for dividends to shareholders of the Consolidated Gas company. John D. Rockefeller, who owns \$40,000,000 of Standard Oil stock, received a check for \$8,000,000, while his brother William, who owns only \$15,000,000 of the stock, will receive a check for only \$3,000,000. The declaration of the Standard

Oil dividend shows that John D. Rockefeller's income from this source alone for ninety days has been \$48,888.88 a day. If continued for the rest of the year at this rate he will receive in dividends from Standard Oil for the four quarters \$32,333,331.20.

### HIGHER TEST.

**Oil For Hawaii Must Stand a Test of 150 Degrees.**

Hereafter crude petroleum shipped into Honolulu for fuel purposes will have to test 150 instead of 100 as at present. This was decided upon at the meeting of the Executive Council yesterday as a measure of protection from the dangers of fuel oil. An opinion was read from the attorney-general in which he held that the superintendent of public works had the right to prescribe regulations as to the care of government storehouses and could refuse permits to store oil unless these regulations are complied with.

At the meeting it was decided also to transfer to the public works department the Wailuku fish pond, to be used in exchange for land wanted for street widening in Honolulu.—Hawaiian Gazette of May 5th.

## New Incorporations.

The following articles of incorporation have been filed in the office of the Secretary of State:

**Induna Oil company.** Principal place of business, Fresno. Capital stock, \$100,000. \$50 subscribed. T. G. Hart, Jacob Clark, F. M. Helm, A. Hall, L. L. Cory of Fresno, directors.

**Golden Gate Oil and Refining company.** Principal place of business, Milwaukee, Wis. Capital stock, \$1,000,000. William W. Allis, B. W. Stone, C. J. Williams, James McGee, Gustav Podell, M. D. Kelly, M. J. Schubert of Milwaukee, directors.

**The Mulholland Oil company.** Principal place of business, Los Angeles. Capital stock, \$1,000,000, with \$25 subscribed and A. H. McKay of Santa Barbara, J. A. Graves of Alhambra, William Mulholland and H. E. Graves of Los Angeles and William R. Rowland of Puente as directors.

**Recruit Oil company.** Principal place of business, San Francisco. Capital stock, \$1,000,000; \$500 subscribed. E. Douglas, W. F. Arnold, C. W. Whitney, C. M. Jurgenson, F. C. Jones of San Francisco, directors.

Almost on the line between Allen and Hardin counties is being drilled the deepest oil well in northwestern Ohio. It is now 2,600 feet and is costing the Dakota capitalists \$65 per day. They are going down 3,300 feet. They have found gas but no oil. It took one-half mile of tubing to case it in.

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# PACIFIC OIL REPORTER

Published Weekly

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Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

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318 Pine Street, San Francisco

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:

A. R. Derge & Co., Salt Lake, Utah.  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver,  
11 Columbia street, Boston, Mass.  
20 Broad street, New York City.

SATURDAY.....MAY 23, 1903

On account of the impossibility of obtaining some necessary photographs showing the recent strikes in the new Wyoming field, the publication of the Wyoming edition was necessarily delayed for one week. The edition will appear on May the thirtieth, and will undoubtedly be read with interest and pleased surprise by the thousands of readers of the PACIFIC OIL REPORTER.

It would seem as if the last defeat of the scrippers' attempts to wrest their rights from the oil men would end their struggle. They have fought their case well and thoroughly in all the courts, from the lowest to the highest, and have met continued defeat, though defended by the best legal talent and having even brought political pressure to bear where possible. The scrippers are beaten, and beaten completely, and it is more than likely they are aware of the fact. It is to be hoped they have got enough and are willing to quit a controversy that is hopeless, illegal, unjust, and which, if persisted in, can have no possible show for bringing about anything more than legal quibbles and much unnecessary bitterness.

The PACIFIC OIL REPORTER is in receipt of a letter from the editor of the Lexington, Ky., Morning Herald asking for information as to the best plan for oiling roads. We suggest that a letter be written to the chairman

of the board of supervisors of any of the counties in Southern California where oil has been used for years in making and repairing roads. One thing however, should be understood at the start, which is that only oil should be used on roads which has a very large proportion of asphalt.

The principle in oiling roads is that when the oil is sprinkled on roads carefully prepared, the volatile elements of the oil soon evaporate, and leave on the road-bed the asphaltum which acts as any asphalt covering would act, the asphalt and the soil mixing and becoming solidified, forming a hard surface which will stand much wear, and which is easily kept in repair by renewing the covering of asphalt oil twice a year or less. Only oil having an asphalt base should be used. Oil having a paraffine base is worse than useless. This has been proved again and again. The thicker the asphalt oil the better the road and the less of volatile substances there will be to evaporate from the oil before the road solidifies. The oil is usually put on hot as it sprinkles better and easier when hot than when applied cold and consequently thick; but there are appliances for sprinkling the cold oil, machines for this purpose having lately been invented and patented.

## Cheap Pumping Plant.

In speaking of the irrigating plant operated by the Creech brothers ten miles south of Tulare, the Register says:

"The pump they are using is an eight-inch Jackson with a twenty-four horse-power gasoline engine, and the expense of running this outfit is 1 cent per horse-power per hour, and it is estimated that in twelve hours it will irrigate seven acres of average land, which would make the cost with distillate at 8 cents, for seven acres \$2.88. The lift is thirty feet and the water is pumped from two wells, one being sixty-four feet deep and the other eighty-four. A strong feature in using gasoline instead of steam is that it only takes two men to handle the outfit and do the irrigating, where it formerly required the services of four men, and the labor of the two men is much less in proportion than it was for the four men.

"The Creech brothers have a beautiful stream of water running in their ditches at any time required, and the lands that are irrigated present a strong contrast to those around them that have not had the advantages of pump water. Mr. Creech is so well pleased with the pump that he says if he had to give it up you would see him packing up his traps and moving out of the country."

Subscribe for the PACIFIC OIL REPORTER.

## THE PIPE-LINE.

On Monday the Oil Will Be Running in the Fourth Section.

The oil tanks at Lethent, the end of the third section of the pipe-line, are now full, and on Monday the oil will be turned into the fourth section, between Lethent and Mendota.

The line is now getting into fairly good condition in the first three sections so far as heat is concerned, and the oil loses but little in temperature in passing through the twenty-eight miles between the stations. At Pond, the end of the first section, the oil is now pouring into the tanks at the rate of 5,000 barrels a day, and the pumps are not working to their full capacity by any means. The success of the pipe-line has now been amply demonstrated, and the troubles of the knockers are about over.

The oil is heated before it enters the pipe to a temperature of nearly 200°. Some have argued that oil heated to this point, when allowed to become cold again increases in viscosity and becomes thicker and heavier to run through a pipe than in its former condition.

This is true as regards oil heated in an uninclosed place.

Heat oil to a high temperature in an open tank or other receptacle, and when the oil grows cold it will be found to be much thicker than it was before being heated. Heat the same oil in an enclosed receptacle or tank, and the oil loses little or none of its lighter qualities. This is true with all oil. So that the light Coalinga oils can be sent through the pipe-line in a heated state and will not lose their lighter qualities or be less suitable for refining purposes than they were before heating.

The above is mentioned because many have asked how the light oil of the Coalinga field could be heated without suffering a loss of its refining qualities, and if it was not heated and sent cold through the pipe the cold oil would again lower the temperature of the pipe and make it difficult to run the heavy Kern oil through. The above explains the matter satisfactorily.

## New Use for Oil.

Other uses for crude petroleum is in the protection of levees and embankments against the burrowing of gophers and squirrels. The Stanislaus News says: "Crude oil is so distasteful to these pests that they shun the ground covered with it. The Sutter county experiment has also proved that an oil covering to the levees forms a splendid safeguard against the damaging effects of the lapping of the flood waters, as the latter slide harmlessly up and down the oiled surface of the bank. The discovery has been of incalculable value to all valley land owners whose property is protected from overflow by levees, as the friction of the water on their unprotected slopes is always a source of danger."

## EASTERN WELLS' COST.

Much Less Than That of California Wells, But Increasing.

According to the Bolivar Breeze, the oil operators of the Alleghany field in New York state will spend several hundred thousand dollars for oil well supplies between now and the 1st of December. In addition to the wells that will be drilled for oil in the Scio, Andover, Rexville, Alma, Bolivar, Wirt and Genesee sections, a goodly number of gas wells will be sunk in the Sharon gas districts, south of the New York state line, in Potter county, Pennsylvania. Some of these wells must be drilled to protect property lines, but the majority are for the purpose of increasing the gas supply of the several companies that control the natural gas territory.

While the price for drilling in the Alleghany oil field ranges from 38 to 42 cents a foot, with fuel furnished, and while drillers' and tool-dressers' wages have not been raised, the advances in the prices of oil well supplies has largely increased the expenses of the producers in the Alleghany field. Some of the deep wells recently drilled in South Bolivar have cost as much as \$2,100, and the average cost of a new well in Southern New York ranges from \$1,200 to \$2,000, according to depth. The drillers receive from \$3.50 to \$4.00 and the tool-dressers from \$2.50 to \$3.00 a day.

But lumber, pipe, cordage and tanks are bringing higher prices than have been known in years. Rig material delivered on the lease is worth from \$16 to \$18 per thousand. Teaming costs \$4 a day. Spikes are worth \$2.55 and nails \$2.65 per keg. Cordage brings 14½ cents a pound; ordinary 5½-inch casing 37 and 6¼-inch 47 cents per foot. Two-inch line-pipe is worth 14½ cents per foot and regular two-inch tubing 15½ cents. One-inch pipe is quoted at 5 cents, while sucker-rods range from 4 to 5 cents a foot.

The Breeze says that there hasn't been a wooden tank sold in the Alleghany field in years. When more tanks are needed, the old 250-barrel tanks are cut down to smaller sizes. There are very few of the larger wooden tanks left in the field. The oil in nearly all of the Alleghany districts can be run on short notice, and there is no longer any necessity for the producers to erect large storage tanks. The smaller tanks are also preferred on account of less danger of being struck by lightning in summer, as well as on account of losses by evaporation. Then it takes a great deal longer to fill a 100-barrel tank with oil than was required a dozen years ago to fill one of 250-barrels capacity. It is clear that a good market is the only thing that keeps the Alleghany oil producer interested in keeping up his yield of the crude product.



PETROLEUM IN JAPAN.

Valuable Information About This Growing Oil Territory In the Orient.

There Are Five Principal Districts, and Two Native Companies and the Standard Oil Company Practically Control the Output.

NAGOOKA, Echigo, Japan, April 28, 1903.

MR. W. B. WINN, EDITOR PACIFIC OIL REPORTER—Dear Sir: Your recent favor requesting some information about the petroleum fields of Japan was duly received, and my absence for a time from Echigo prevented my answering earlier.

If the following will be of any use to you I will be greatly pleased.

I will gladly send you more detailed information if you so desire.

With regards, I am

Yours respectfully,  
K. KONDO.

The present producing oil fields in Echigo province are five in number, among which Higashiyama, Nishiyama and Niitsu are the older fields, they having been opened five or ten years. The next, Kubiki field, was started in 1900, and the last, Ojiya field, was opened only last May.

The area of producing field, so far as known at the present, is about 300 acres at Higashiyama and about 100 acres at Nishiyama, though the size of these fields is increasing year after year. The other fields are spreading rapidly, and it is hardly possible to estimate their acreage.

Besides the above mentioned, there are many more fields where wild cat wells are being drilled where are discovered exposures of natural gas or oil spots, which are very abundant in Echigo province and also in the northern part of Japan.

The oil business is practically

controlled by three companies, the Japan Oil Co., Hoden Oil Co., and International Oil Co., though there are more than one hundred smaller companies outside of these. The former two are of Japanese capital, paid up to \$1,200,000 and \$750,000 respectively.

In starting the oil business here

to America, and now the drilling and refining is all done by Japanese, some of whom received training in America.

The International Oil company is announced to have \$5,000,000 for its capital, and is in fact a branch of the Standard Oil company. The two native companies are succeeding in business very well, and have paid as high as 40 per cent dividends. The Inter-

Origin of Petroleum.

President E. Coste, of the Canadian Mining Institute, believes that the great petroleum deposits of the world are of volcanic origin. The theory held by geologists generally is that the petroleum has arisen directly from the decomposition of organic remains, animal and vegetable. Mr. Coste holds that this theory is untenable. He calls attention to the

	Higashi-yama	Nishi-yama	Niitsu	Kubiki	Ojiya	All others	Total
No. of wells in each field—							
American system	183	141	62	44	6	6	442
Native process	132	127	172	4	1	1	437
Hand boring wells	15	20	11	1	1	1	49
Production of crude in 1902	16,250,000 gallons	21,700,000 gallons	11,200,000 gallons	1,000,000 gallons	141,000 gallons	277,000 gallons	52,568,000 gallons
No. wells being drilled—							
American system	9	7	29	19	18	4	86
Native process	—	—	108	—	—	1	109
Hand boring wells	—	—	—	—	—	—	7
Av. depth producing wells	500 to 800 feet	700 to 900 feet	600 to 700 feet	500 to 750 feet	600 to 700 feet	—	—
Prob. crude production 1903	18,000,000 gallons	21,000,000 gallons	12,000,000 gallons	1,000,000 gallons	141,000 gallons	277,000 gallons	54,318,000 gallons
Average gravity of crude	75° B. 12° A.	75° B. 21° A.	75° B. 22° A.	75° B. 24° A.	75° B. 44° A.	75° B. 45° A.	—



Portion of Higashiyama Oil Field of Hoden Oil Company.



1 Higashiyama Field 2 Nishiyama Field 3 Niitsu Field 4 Kubiki Field 5 Ojiya Field.

American drillers were first engaged, but they have all returned

national Oil company has not struck a good well in the last two years.

The products from the crude are naphtha, refined oil, many kinds of lubricating oil, gas oil, fuel oil and asphalt. Large quantities of those oils are imported from America by the Standard Oil Co., and from Russia by the Shell Transport and Trading Co.

The native production is only about a quarter of the whole consumption in Japan.

The accompanying picture and table give a general idea of the Japanese oil business.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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fact that no such process is at present under way; that all organic decomposition of animal material is so rapid and complete that there is no opportunity for the entombment of anything but bones in sedimentary rocks; that as the oil deposits of the lower Silurian limestone of Ohio and of other fields are below the carboniferous beds, and as it is generally admitted by geologists that previous to the latter age there was very little vegetable life on the earth, the enormous deposits could not have arisen from organic remains, because there were few organisms at that time, and, finally, that if petroleum were due to the destructive distillation of coal, there would be no coal beds, all having long ago been transformed into petroleum and a coal-like residue.



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### COALINGA.

The Fresno-San Francisco Oil company struck the oil sand and are now finishing up its No. 3 well, which promises to be the best producer of the three that the company has.

Messrs. Brown & Garrigan, who are finishing up Hanford Oil company's No. 3 well have been awarded the contract for putting down well No. 3 for the Esperanza, work to begin this week.

After much delay R. C. Baker has spudded in this week and is now making good progress. Mr. Baker has recently finished one well on a sub-lease from the St. Paul Oil company, which he is now offering for sale.

Three new tanks were received in town last week all coming from the Pacific Tank company. One 1,200-barrel tank is for the El Zuma, another for the Esperanza, and the 1,500-barrel tank for Section Seven Oil company.

Pumping from six wells for twelve hours each day does not seem to supply the present demand for water in the field. The water company is compelled to run evenings to keep a constant supply of water for the working rigs.

The Chicago Limited is considering the advisability of pulling its 4½-inch casing to continue down with the 6-inch. This company is now down 2,850 feet and it feels that the indications of oil warrant its continuance a little deeper.

McClurg & Claypool are rigging up for No. 3 on section 31. This company brought in a 200-barrel well about two months ago, has one nearing completion, and now is rigging up its third. It is located on good territory and bids fair to bring in some excellent producers.

It has been learned that the Blue Diamond Oil company are considering starting up in the near future. This company has been idle for over one year shutting down after reaching a depth of 300 feet. They are located on some good proven territory and their success of getting a good well is assured.

A gang of men from the Pacific Coast Oil company are laying the pipe connecting the private tanks in the vicinity of sections 6 and 31 with the company's tank on section 6. The company has experienced some delay in completing the main pipe-line because it was short one and one-half miles of pipe which is expected in during the week.

One of the most serious troubles that can befall a company has been experienced by the Section Seven Oil company. After reaching a depth of nearly 900 feet it got into some heaving sand which forced itself up 100 feet into the casing. Now the two strings of casing are frozen together which necessitate taking both strings out together.

On Friday the 15th, fishing was all in vogue in this field no less than four companies having their tools in the hole. The unfortunate companies were the Hanford Oil company, The New San Francisco Crude Oil company, the El Zuma Oil company, and the Independence Oil company. The Hanford had little difficulty in regaining their tools while the others had to labor more persistently.

A deputation of Southern Pacific railroad officials arrived in town in a special car last Friday to look over the field with reference to laying pipe-lines to connect its two large tanks at Ora Station with the field. Rumors have been current for some time that the railroad com-

pany had an option on the West Side pipe-line. This has been denied by the manager of the pipe line, and the visit of the officials of the railroad company seems to authenticate his statements.

Mr. C. A. Canfield, the pioneer oil man in this field, was in town looking up some recently contracted leases and to ascertain the advisability of drilling on the same. For some years Mr. Canfield has had no wells drilled in this field, directing his attention to other fields in this and other states. His friends and business associates in town are confident that he will soon have several rigs drilling in sections 30 and 34. While here he leased from the Aetna Oil company, on section 30, 19-15 the E½ and S¼ of the SE¼; the SE¼ of the NE¼.

The National Supply company will be ready to fill orders by next week, carrying a complete stock of all tools and supplies necessary for oil well drilling. Mr. C. R. Chase, the local manager of the company will have an assistant here very shortly. At present he is occupying an office in the Coalinga Oil company's building until they can find a suitable site on the north side of the track for a store building. Tools and machinery are beginning to come in and in a comparatively short time their new store-house will be completely stocked.

R. H. Herron company has made arrangements with A. P. May to occupy a store in his new building that will be erected on the present site of the store on June 1st, east of the Pleasant Valley hotel. The building will be of brick, seventy-five by seventy-five feet, the Herron company to occupy the store besides the hotel which will be seventy-five by seventy-five feet and unquestionably the best location for a supply store in town. Mr. Fred Kugler, formerly manager of the McKittrick store of this company, will come here to assist Mr. P. Porter, the company's manager in Coalinga. The building will be ready for occupancy on or about July 1st.

George Bliss and J. B. Newport returned yesterday evening from a visit of two days to the Coalinga oil fields, where they went on business connected with the Esperanza company, in which they are both interested. Mr. Newport stated to-day that the company is making preparations to commence drilling well No. 3, and the drill will probably be penetrating the old earth within the next few days. In speaking of the other two wells he says that they are keeping up the good work and whenever not capped, on account of a lack of tankage for the product, the oily substance continues to flow, and within a short time they will have arrangements made to dispose of the product and then the wells will not have to be capped, which is more or less injurious to the well as it may cause the flow to cease, as is the case with artesian wells at times. He says that business is very lively there at present, and there is a great shortage of both men and teams to do the work, as work is continuing to increase since the Standard Oil company have completed their pipe-line into the field and now there is a glorious prospect for good prices. It is very probable that Coalinga oil will be the first material to flow into the receiving tanks at Point Richmond. The Standard people have extended their branch pipe-lines all over the field, whether they have the oil in that section contracted for or not, and will be ready

to receive oil by next week. From the different wells the gravitation carries the oil down to the pumping station, where it is pumped up into large storage tanks on the hill, back of the Home company's property, from where gravitation again plays its part and the oil will flow into the main pipe-line near Mendota, about thirty-five miles away, and can thence be forwarded to Point Richmond, and as the oil is ready for them in the Coalinga field and they are prepared to handle it, thus the former conclusion that that product would reach the Bay city first.—Hanford Sentinel.

### COLUSA.

W. E. Youle will shortly be at work on the Bear Valley well. A new 2,000 foot cable was received last week.

The Williams Oil company will soon be at work, and there is a prospect of several other companies renewing work.

### CONTRA COSTA.

The drilling equipment and personal effects of the Mt. Diablo Oil company were sold at public auction on the 19th inst., under a suit brought by H. J. Everett, who has been engaged in sinking wells for the corporation. A long list of tools and other paraphernalia was included in the articles disposed of.

### HALF MOON BAY.

The Fountain is down to the 1,200 foot line and work is being pushed forward as rapidly as possible.

The Tesla company has struck oil sand and are looking forward to a great well. They are down nearly 900 feet.

Knapp's oil refinery has closed down for the purpose of putting in a new boiler, when they will open up on an enlarged scale.

At the Wisconsin, oil and water are running over the casing, work having been discontinued until the return of Mr. Kerr from the East.

The High Gravity is being worked night and day, and is down nearly 1,500 feet. The company expect to strike better results soon. A load of casing went through town Friday morning for improvements.

The Sallee & Guiberson deep well will continue to go deeper. They are now down about 2,300 feet and will go down as far as they can reach with small casings. The company expects great results from this well.

The oil wells of this district continue to show up good prospects of a better flow. In nearly every case where a well is being driven the indications grow better. The wells in this vicinity are

attracting a great deal of attention and a general inquiry everywhere.

The Pilacitos is down about 500 feet and they have struck their first oil indications. They have a good straight hole—so straight that even at this depth the casing can be turned around easily. The grade of oil that will be struck can only be told when they find it in larger quantity.

### KERN

The California-Sedalia Oil company is erecting another rig on its property.

The Diamond Oil company is intending to put down ten new wells, beginning at once.

The rig of the Webfoot Oil company, in the Cuyama, was burned last week. It will be replaced and the work continued.

The Fulton Oil company has struck the oil sands in its well No. 1, and is now starting up two more strings of tools. Three more rigs are being erected.

The Shamrock company at McKittrick, which is a part of the Associated, has the contract for filling the 55,000 barrel tank just completed by the Southern Pacific at its terminal there.

M. Schwartz of the Maricopa Oil company has a twelve months' contract for six carloads of oil per week, and has other contracts that will bring his shipments to twelve cars per week for the next six months.

The Belgian and the San Francisco-McKittrick companies are shipping regularly and improving their properties. The McKittrick is producing about 300 barrels a day and has about 10,000 barrels in the slump holes.

The Pittsburg Oil company was obliged to pull out the casing on its well No. 1 last week on account of water. The difficulty has now been adjusted and work is resumed. A crew has gone out to start up work on No. 3. A rig is being erected for No. 4.

Mr. James of Dayton, Ohio, was recently inspecting the property of the Dayton Oil company at Midway. They have one well down 1,200 feet, with two strings of casing, and expect to tap the oil sand soon. The company is composed principally of Dayton men.

After expending over \$18,000 in drilling for oil in the Midway district, Kern county, going down 1,500 feet, the Cassa Oil company has given up the job and gone out of business. It was generally thought that this company had the best prospects of any company organized in Sanger for the purpose of exploring the Kern oil fields, yet it has proved a failure like all the rest.—Sanger Herald.



WE BUY, SELL, AND LEASE proven oil land; drill wells; buy, bond and lease, incorporate and finance oil and mining companies, and act as Trustee and Fiscal Agent.

We sell stock to develop oil and mining companies, also dividend paying stock. We hold as Trustee for oil and mining corporations almost 2,000,000 shares of their capital stock in a TRUST FUND. If any company fails, we, as Trustee, take up its stock and issue to its stockholders stock of the successful companies from the Trust Fund. Thus a buyer of stock of any company has an interest in a number of developing oil and mining properties. Stockholders have a pro rata interest in the enormous Trust Fund created for their protection. As Trustee and Fiscal Agent we control the Trust Fund absolutely that guarantees protection to stockholders in each individual company.

Maps, charts, printed matter, sent on request. Correspondence solicited.

Mention this paper.



The report comes from Visalia that Tulare and Kings county oil men are at work in the Devil's Den district in the extreme northern part of Kern county and have erected three rigs there for drilling wells. The news was brought by a Bakersfield oil man who visited Visalia a few days ago and did not know the names of the companies or the parties interested in them.—*Californian*.

After inspecting the Kern River oil fields, and having under consideration for some months the feasibility of establishing a rural delivery route therein, the matter has been favorably acted upon by the Postal Department and the route will be established in the near future. The route will cover a distance of about twenty-five miles and will take in nearly all of the field, thus giving to the people there a daily delivery of mail.

The Standard Oil company last week commenced work on a pipe-line about four miles in length, which will run from the railroad near the company's property to the properties of the several companies operating in the Kern River field. The line will run to the property of the Hart Crude, on 36, 28-27, and may extend further. The companies operating on this side of the field have been much handicapped in the past by the absence of transportation facilities. These will now be supplied by the pipe-line.

Much activity is reported from the Temblor district where a number of new wells are drilling. Work which was largely suspended in that district is now being actively resumed on many properties. F. E. Mannel is putting up a rig on 18, 29-30 for drilling at once. This is on the property of the Gould Central Oil company. The Bishop Fishing Tool company has found oil at a depth of 1,000 feet in its well at Temblor on 13, 29-30, adjoining the Gould Central property. The Paraffine is about to start up another well on 12, 29-29.

The Kern River company is erecting four additional rigs to work on new wells. This company is now getting its water supply from the McKittrick company, which supplies water to several companies from its artesian well. There has been considerable trouble between some of the oil companies and the water company, and the Southern Pacific is now putting in water works of its own, located just below the San Francisco-McKittrick, using a gasoline engine with a Crowe suction pump. The Kern River company is supplying its water at lower rates to those companies doing business with it.

Mr. J. T. Forrester, president of the Union company, that bought up the well and land of the Stratton company, is now the field superintendent of the company. The well has been plugged up with a bit and stem to keep the oil from flowing from the well. As it is the oil continually flows from a small two-inch hole, and several thousand barrels are now in the slump hole. This hole will be enlarged to a capacity of at least 10,000 barrels, the well will be capped, and two new wells drilled. Officers of the company from Chicago inspected the property this week. It is located in the Midway field, near the Sunset line.

#### LOS ANGELES.

A transfer of all the oil property of the Wilson Oil company has been made to the Woolner Oil company of Los Angeles, the latter having purchased the fine pumping plant and fourteen wells on Commonwealth avenue, not far from the Baptist college building. In the early days of the oil excitement this property was valued in the neighborhood of \$200,000, and although no such price has now been paid it is understood that full value was paid for the property. At the present time the wells are producing from 800 to 900 barrels of oil a month, and although this is a falling

off from the early yield in this, the general rule observable throughout the local field has obtained. As none of these wells have been carried down further than 600 or 700 feet it is the intention of the new owners of the Wilson wells to go after the second sand. The wells in the eastern field have been rejuvenated by deep drilling and some inferior wells have been transformed into prolific producers at depth. The Woolner people believe that what has proved true of the eastern oil field applies also to western extension, albeit to date no one has had the courage to go after the oil at depth. Though the matter is largely problematical, it is expected that the Wilson wells will have to be carried down anywhere from 1,500 to 1,700 feet to tap the second oil-bearing stratum. In doing this the company will be doing pioneer work in that particular part of the field, but is supported by expert operators in the claim that these wells are situated in the heart of the second sand territory.

#### MENDOCINO.

W. E. Youle has contracted to drill two wells at Ukiah.

#### SANTA BARBARA.

The Lompoc Oil company is again at work with every appliance for going to any depth required. The well now is down about eighteen hundred feet with a gas-flow strongly indicating nearness of the oil strata; two or three hundred feet more should bring in a gusher and will if abundance of gas is a certain indication of the presence of oil.

The Union Oil company's second well is going down at the rate of several hundred feet each week. Thirty days more, with no set-back, the boring will reach the depth of the first well that proved such a valuable producer, and being so near the first well no one doubts success. The derrick and machinery for the third well are about ready for operation, with material arriving daily for further development work.

Several prominent oil experts have been prospecting and looking over the Lompoc and Santa Rita territory the past and present week, and all agree that this is prospectively the largest oil territory in the United States. One of them was very profuse in prediction that the greatest oil industry on the coast would be developed in this region, and that not only one but a dozen able companies could and would find room for profitable investment in the industry.

The boring rig now going up near the Los Alamos grade will soon be in operation and work will be pushed with vigor, as the Crocker Woolworth Bank of San Francisco is backing the new enterprise. If this well proves a success there will no longer be any doubt about oil being secured throughout the entire Santa Rita region covering many thousands of acres and which embraces all of the Santa Rosa rancho north of the river. With oil secured in that region, speedy development will follow, as several parties, independent of the Union Oil company, are carefully investigating the territory and are now waiting on the result of this new venture. Another twelve months will find this territory pretty well exploited from the ocean back twenty miles or more.—*Lompoc Record*.

Articles of incorporation were filed at San Luis Obispo on Monday by the Mulholland Oil company, which was formed to operate in the oil fields of the northern part of Santa Barbara county. The particular tract to which the corporation will devote its attention is known as part of the Guadalupe rancho, consisting of about 1,500 acres and situated a few miles southeast of Guadalupe lake. The district has previously been exploited and partially developed and those who have entered the new enterprise are satisfied that valuable oil deposits will

be found with proper drilling. The capital stock of the corporation is fixed at \$1,000,000. The directors named are A. H. McKay of Santa Barbara, William Mulholland and H. E. Graves of Los Angeles; J. A. Graves of Alhambra and William R. Howland of Puente, Los Angeles county. The principal place of business is to be located at Los Angeles. The property controlled by the corporation was secured by a lease from B. Pezzoni, who agrees to grant the company the privilege of boring for oil for a period of twenty years in consideration of a royalty of 10 per cent. Valuable asphalt mines have been found on the property.

#### WYOMING.

G. S. Ellinger of Chicago has organized another company—the Toledo-Wyoming Oil company, who have purchased a portion of section 20, 14-119. This company is composed of Toledo capitalists and is already negotiating for a rig and will begin operating at once.

Articles of incorporation of the following companies to operate in the Uinta county oil fields, have been filed in the county clerk's office in Evanston during the past week: The Toledo-Wyoming Oil company, capital stock \$500,000; the Dallas Oil Investment company, capital stock, \$500,000; the Fossil Oil company, capital stock \$50,000.

Messrs. Hardin and Price returned to Evanston last Saturday, prepared to push development work at the Jager oil well. Last year these people made one of the best strikes in the Uinta county field, and have returned with a determination to execute development work on a large scale. They will place several new rigs in the field this season.

At a meeting of the stockholders of the Bettys Oil and Development company, held at their office in Evanston on Monday, the 11th inst., the following trustees were elected for the ensuing year: Perry Hutchinson, Marysville, Kan.; Jas. B. Hayden, W. S. Miller, A. G. Klingaman, H. M. Philips, R. L. Thomas and L. L. Bettys, all of Topeka, Kansas.

Mr. Bettys returned last Saturday to Evanston from Topeka, Kan., and after a visit at his holdings south of town reports everything going on satisfactory at the well. They are running full time and making good progress downwards with the big hole. The casing will arrive soon and fast time is looked for when they get to drilling in the smaller hole and the water is shut off.

The American Consolidated Oil company, drilling on section 14, struck a strong flow of oil on Tuesday of last week at a depth of 700 feet. When the sand was tapped a heavy pressure of gas shot the oil several feet in the air, saturating every timber in the derrick. This is an excellent showing on the first sand, and the fact that the company has only

been thirty days reaching a depth of 700 feet, and with but little expense, gives encouragement to others who are drilling in the field. The oil now stands level with the ground, and the well gives promise of being nothing less than a very heavy producer, which makes the proposition a paying one at once. Evanston has been in a fever of excitement since the good news reached there, and the management of the successful company are highly elated over the strike. This is the first good strike to be made this season, and will equal, if not surpass, any flow yet encountered. Samples of the oil have been brought to Evanston by parties visiting the well, and the quality speaks for itself. Wells in that locality will apparently be very shallow and can be put down at not to exceed from \$1,500 to \$2,000. A number of other rigs will go up in that section right away. The strike establishes again the fact that oil exists in large quantities in the Uinta county field. Orders have been received from headquarters to cease operations for the present. Messrs. Canfield and Butler are now in the field.

#### Recent Patents.

The following recent patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Attachment for drill wrenches, E. C. Miller, Laharpe, Kans.; No. 725,267.

Coupling for well drilling machines: H. G. Johnston, Corsicana, Texas; No. 725,568.

Rope clamp, J. L. Smith and John McCambridge, Lima, O.; No. 725,599.

Friction clutch mechanism, P. H. Mack, Bradford, Pa., assignor to Oil Well Supply company, Pittsburg; No. 725,735.

Device for extracting drills, etc., C. A. Horan, Stockton, Cal.; No. 725,744.

## Oil Land FOR SALE

Fifteen hundred acres of land near Lompoc, and near the oil wells recently drilled in this district. This land contains the very best indications for oil.

For sale as a whole or in subdivisions.

Low price; favorable terms.

Address

"LAND OWNER"

Care of PACIFIC OIL REPORTER

318 Pine St., S. F.

None but principals need apply.

## California Combined Oil Co.

Is just completing its first well  
in the Kern River Oil District

Has the derrick up for well No. 2, which well will be begun as soon as well No. 1 is completed and perforated.

Other wells will be drilled at once, until this company is in a position to sell oil in sufficient amounts to pay regular dividends.

The company is organized on a basis of 1,000,000 shares, par value \$1. The company has a large acreage, located in the different oil districts.

A limited amount of treasury stock is now offered for sale at the rate of 25 cents a share. The company has no indebtedness, and pays its bills as they are incurred. Only 10,000 shares will be sold, and this will be used only for actual development work.

The officers are: Pres., Z. N. Goldsby; Vice-Pres., Prof. J. T. Wallace; Sec., J. H. Edson; Treas., Central Bank, Oak'd.

Office: 1069 Broadway, Oakland, Cal.



**THE COALINGA FIELD.****The Need of Organization Among the Producers.**

FRESNO, CAL., May 13, 1903.

EDITOR PACIFIC OIL REPORTER

—Sir: I read with the greatest interest your article on the Coalinga field in your last issue. Believing, as you do, that it will be an enormous producer of a high grade oil, and being a rather heavy stockholder in three companies in that field, I venture to call the attention of other stockholders in this field, through your valuable columns, to the immense importance of some sort of organization among the many producers in that district. It is a very strange thing how apathetic oil stockholders are in the matter of their oil interests, and I can account for it only one way—that oil investments have been made with surplus money and in a speculative spirit. No doubt there is also a good deal of the same feeling which exists among the average tax payer "What is everybody's business is nobody's business". As an instance of how ruinous this spirit is I will cite the fact that for two years I rode once a month over or into a chuck-hole in a Fresno county road, nine miles from my home, while many residents within a mile of it rode over and into it several times a week for at least the above length of time. It would have taken but twenty

minutes with a shovel to have filled it. I think the chuck-hole is still there.

We oil producers now have a chuck-hole proposition before us in the shape of an extra 5 or 10 cents per barrel, more or less, which we ought to get for our Coalinga product in addition to the 20 cents now offered, and which we probably will get if we unanimously demand it. The Standard Oil company may well take for its motto, "United I stand, divided you fall". Inasmuch as it is a developer of the oil industry it is our friend, but of course it does business as the rest of us do—buys at the lowest and sells at the highest it can. It takes all the legitimate advantages which opportunity offers, and we are offering it an enormous advantage by keeping apart from each other, in ignorance of what our neighbors are producing or being offered for their product, when the very least we should do is to form an information bureau so that all sellers can know what the buyer is offering, what each other company is producing, etc.

I will here endeavor to show what 5 cents per barrel, more or less, means to the average stockholder:

A company producing 300 barrels daily equal 9,000 per thirty day month which, at 20 cents equal \$1,800 per month; at only 5 cents per barrel more, 25 cents

equal \$2,250 per month; difference, \$450 per month, or \$5,400 per annum.

The owner of, say, 5 per cent of the stock of a company—100 shares out of total of 2,000, for instance—receives as much as \$270 per annum more on his stock if oil is 25 cents than if 20 cents. Five cents per barrel may seem but a small matter to one who has not figured things out, yet to the owner of 5 per cent of the stock of a company producing 300 barrels per day it represents an annual income of \$270—10 per cent on the no mean sum of \$2,700.

Now, Mr. Editor, I know there are hundreds of oil-stockholders who would do a great deal of hard work, esteem it an important matter of business to make \$2,700, and yet will scarcely turn a hand, certainly will not take the trouble to appear before his board of directors and figure and remonstrate with them, when by so doing he can the same as earn \$2,700.

Yours very truly,

W. G. URIDGE.

**Colorado Refinery.**

The Boulder Oil refinery, situated five miles from the town of Boulder, Colo., will be reconstructed, enlarged and moved closer to the corporate limits. Its capacity will be 150 barrels, thus affording a better market for the Boulder production.

Subscribe for the PACIFIC OIL REPORTER.

**New Pumping Plants.**

Dr. J. W. Lowrey of Tulare has his new pumping plant at the Jones ranch in operation and is well satisfied with the result, the present flow being eighty inches, or sufficient, according to his figures, to irrigate 320 acres during one season. The well has 10-inch casing and is 80 feet deep. It is equipped with a 6-inch pump and a 12-horse power engine run by gasoline, the lift being 30 feet. The cost of the plant was less than \$10,000, and the cost of gasoline for running the engine is at present about 75 cents for 24 hours. The well has been undergoing the testing process for three or four days and holds up to all expectations. The pump is still throwing some sand, and the doctor thinks as soon as the sand has been worked out the capacity of the well will be materially increased.

W. S. Hopkins has just installed a pumping plant on his farm southwest of Selma. He has a 40-horse power steam engine with which to run a No. 10 centrifugal pump. It is now throwing a stream of water ten inches deep and ten feet wide.

Two 5-inch centrifugal pumps were purchased recently through the agency of the Sanger Agricultural Works for use on Mr. Bennett's ranch in Rosedale district. These powerful pumps are being installed in many of the orchards and vineyards hereabout, and when the farmers get cheap electric power from Kings river a year or two hence they will become independent of the water monopolists.

**INVESTIGATION MEANS INVESTMENT**

By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodget and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY****470-471-472 Parrott Building****SAN FRANCISCO, CAL.**



## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
	Gallons	Value	Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been dis- tilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
February, 1903.										
British Columbia.....							781	\$397		
Costa Rica.....					250	\$53				
Guatemala.....					5,550	1,161	80	111		
Nicaragua.....					2,000	370	381	42		
Salvador.....					2,200	475	111	35		
Mexico.....			100	\$31	2,400	518	5,100	1,260		
Chili.....							1,114	298		
British Australasia.....							1,711	388		
French Oceanica.....			550	96	2,390	508				
Alaska.....					1,690	273	517	358		
Hawaii.....	2,120	\$105	9,165	1,219	25,000	5,455	9,15	3,839		
Tutuila.....					110	111				
Total.....	2,120	\$105	9,815	\$1,346	41,590	\$8,833	18,942	\$6,637		
March, 1903.										
British Columbia.....					300	\$75				
Costa Rica.....	304	\$19	1,030	\$234	700	147	278	\$101		
Guatemala.....					9,760	1,996	330	157		
Honduras.....			300	70	200	38				
Salvador.....			110	18	4,810	784				
Mexico.....					150	28	317	106		
Chinese Empire.....							40	20		
Japan.....							2,850	576		
British Australasia.....							1,000	211		
French Oceanica.....					370	79				
Alaska.....			660	122	940	208	3,630	771		
Hawaiian Islands.....	218,000	7,150	11,280	1,872	162,500	26,381	7,198	3,171		
Tutuila.....					1,182	237				
Total.....	218,304	\$7,169	13,380	\$2,316	180,912	\$29,973	15,643	\$5,113		
April, 1903.										
British Columbia.....					200	\$49				
Costa Rica.....					600	136	82	\$42		
Guatemala.....					8,060	1,600	366	157		
Salvador.....					3,600	638	331	152		
Mexico.....							474	172		
Chili.....							1,455	455		
Chinese Empire.....							600	120		
British Australasia.....							5,200	1,514		
All other British Oceanica.....					60	15				
French Oceanica.....					490	105				
Alaska.....			96,830	\$9,334	39,738	5,829	4,820	2,160		
Hawaii.....	1,092,000	\$36,400	11,790	1,699	27,880	5,868	6,361	1,442		
Tutuila.....					40	6				
Total.....	1,092,000	\$36,400	108,620	\$11,033	80,668	\$14,246	19,689	\$6,214		

## 50 cents Asphaltum Refinery 50 cents

A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and outhouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

6000 ACRES 6000 ACRES

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

## Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

Stock Non-Assessable.

Treasury Stock, - - \$350,000

475-476 Parrott Building, 855 Market Street, San Francisco, Cal.

TELEPHONE, SOUTH 488

Proven oil lands in Napa and Coalinga for sale cheap.

AGENTS WANTED In All Large Cities for the Sale of Our Al Refined Asphaltum



**Sold to the Standard.**

The business of the King-Keystone Oil company, a San Francisco oil company dealing principally in fuel oil, has been sold to the Standard Oil company, which has taken over all its fuel oil contracts.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, May 20th:

**CARIBOU.**

100 at 85..... \$ 85 00

**CALIFORNIA STANDARD.**

3,500 at 14..... 490 00

**FULTON.**

137 at 2 75..... 376 75

**HANFORD.**

1 at 118 00..... 118 00

**HOME OIL.**

100 at 2 65..... 265 00

100 at 2 70..... 270 00

100 at 2 70 (S 90)..... 270 00

400 at 2 75..... 1,100 00

**INDEPENDENCE.**

8,033 at 17..... 1,365 51

1,000 at 17 (B 30)..... 170 00

1,000 at 17 (S 90)..... 170 00

11,500 at 18..... 2,070 00

1,000 at 18 (S 90)..... 180 00

1,000 at 18 (B 90)..... 180 00

1,000 at 18 (C)..... 180 00

5,100 at 19..... 969 00

1,000 at 19 (B 30)..... 190 00

**JUNCTION.**

6,100 at 07..... 420 00

1,000 at 08..... 80 00

2,000 at 09..... 180 00

1,869 at 10..... 186 90

**KERN.**

150 at 5 00..... 750 00

100 at 4 50..... 450 00

**KERN RIVER OIL.**

50 at 12 50..... 625 00

10 at 13 50..... 135 00

**LION.**

950 at 06..... 57 00

**MONARCH.**

50 at 53..... 26 50

200 at 54..... 108 00

550 at 55..... 302 50

**MONTE CRISTO.**

200 at 1 10..... 220 00

**OCCIDENTAL OIL.**

2,900 at 20..... 580 00

3,800 at 21..... 798 00

500 at 22..... 110 00

**OIL CITY PETROLEUM.**

500 at 32..... 160 00

900 at 33..... 297 00

1,000 at 34..... 340 00

4,000 at 35..... 1,400 00

**PEERLESS.**

110 at 15 50..... 1,705 00

**PITTSBURG OIL.**

332 at 45..... 149 40

**REED CRUDE.**

6,104 at 34..... 2,075 36

5,050 at 35..... 1,767 50

3,000 at 36..... 1,080 00

**S. F. & MCKITTRICK OIL.**

235 at 2 50..... 587 50

**SAN JOAQUIN.**

25 at 5 00..... 125 00

**SENATOR.**

250 at 60..... 150 00

400 at 65..... 260 00

**SOVEREIGN.**

1,050 at 42..... 441 00

**STERLING.**

100 at 3 25..... 325 00

312 at 3 30..... 1,029 60

**TWENTY-EIGHT.**

900 at 4 00..... 3,600 60

400 at 4 10..... 1,640 00

100 at 4 15..... 415 00

500 at 4 40 (B 90)..... 2,200 00

80,768 Shares, Amount, \$33,225.52

NORTHERN CAL. POWER CO.

40 at 9 75..... 390 00

40 Shares Amount \$390

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	2.00
Apollo.....	.40	.42
Asso. Oil Co Stk. Tr.		
Certificates.....	.25	
Aztec.....	.70	.74
Bear Flag.....	.05	.15
California Standard...	.13	.14
Caribou.....	.82½	.87½
Central Point Con.....		.80
Chicago Crude.....	.15	.23
Clairmont.....	.30	.35
Esperanza.....	.70	.75
Fauna.....		.04
Four.....	.70	
Fulton.....	2.50	2.75
Giant.....		.25
Hanford.....	118.00	122.00
Home.....	2.60	2.75
Homestake.....		5.00
Imperial.....	18.00	
Independence.....	.17	.19
Junction.....	.10	.12
Kern.....	5.00	
Kern River.....	15.00	
Lion.....	.06	.07
Monarch of Arizona...	.55	.60
Maricopa.....	.10	
Monte Cristo.....	1.10	1.15
Nevada.....	.20	.50
Occidental of West Va	.20	.21
Oil City Petroleum....	.33	.34
Peerless.....	15.00	15.50
Petroleum Center.....	.02	.06
Pittsburg.....	.45	.49
Reed Crude.....	.37	.39
S. F. & McKittrick.....	2.50	
San Joaquin O. & D....	5.50	5.75
Senator.....	.65	
Shamrock.....	.24	
Sovereign.....	.42	
Sterling.....	3.20	3.25
Superior.....	.04	.06
Thirty-three.....	8.25	9 00
Toltec.....	.15	
Twenty-eight.....	4.00	4.50
Union.....		64.00
United Petroleum.....		118.00
West Shore.....	3.00	3.50
Western Petroleum.....		
Wolverine.....		.52

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GURDON BRADLEY, Assistant Secretary.

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Ar. St'kton	11:10 a	12:08 p	7:30 p	11:15 p
" Merced	1:20 p	1:40 p		1:28 p
" Fresno	3:20 p	3:00 p		3:56 p
" Hanford	5:00 p	3:51 p		5:50 p
" Visalia	4:48 p			5:50 p
" B'kfield	7:10 p	5:50 p		7:35 p
" Kan. C.		2:31 p		8:02 a
" Chicago		2:15 p		8:47 p

a for morning; p for afternoon.

8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.

9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.

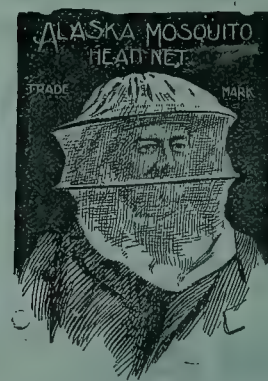
4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.

8:00 p. m. is the Overland Express, with through Palace and Tourist Sleepers, and free Reclining Chair Cars to Chicago; also Palace Sleeper, which cuts out at Fresno. Corresponding train arrives at 6:00 p. m. daily.

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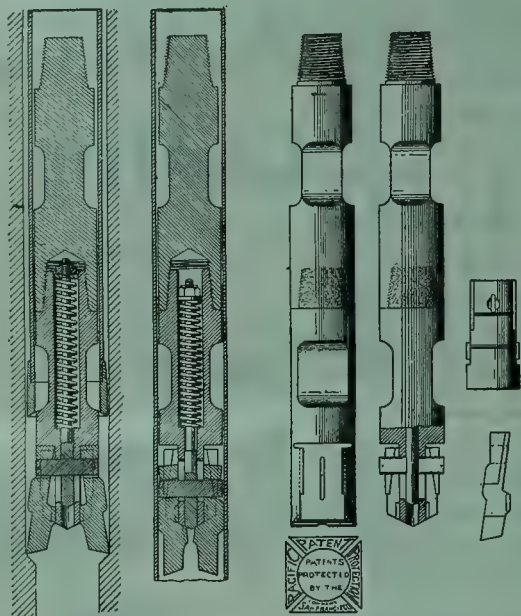
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 30.

SAN FRANCISCO, CAL., SATURDAY, MAY 30, 1903.

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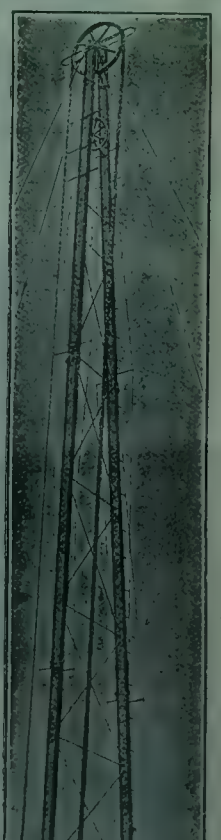
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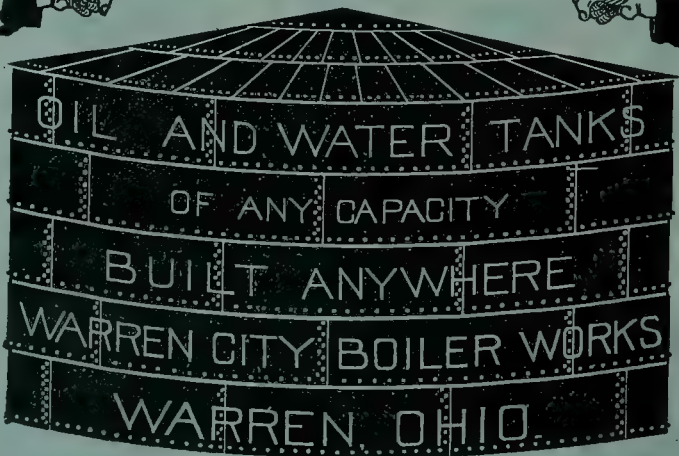
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# PACIFIC OIL REPORTER

VOL. 4. No. 30. SAN FRANCISCO, CAL., SATURDAY, MAY 30, 1903. PRICE, TEN CENTS.

## KNOCKING OIL ASPHALT.

### Eastern Asphalt Journals and Political Paving Contractors Conspire Against It.

### The Wide-Spread Prejudice Existing in the East Against Our Asphalt, and the Attempts That Are Being Made to Drive It from the Market.

The PACIFIC OIL REPORTER desires to emphasize the fact to the asphalt producers of California that there is a very general attitude of hostility to California asphalt by all the dealers in asphalt in the Eastern states.

From Maine to Kansas city there seems to be a general determination to down California asphalt if it can be done, to keep it out of the market if possible, and to have all paving specifications so drawn up that California asphalt is excluded from competition wherever possible.

The only hopeful element in the situation is the unquestionable fact that much of this hostility to California asphalt is due to the woeful ignorance of those who are opposed to it, and to the additional fact that many of those

who are fighting it are doing so from motives of self-preservation, as they are fearful that if the California asphalt is once introduced it will soon demonstrate its superiority over other asphalts and become a successful competitor for the bulk of the asphalt business.

We desire to emphasize these two facts:

First; that this opposition to California asphalt exists.

Secondly; The reason and grounds for this opposition.

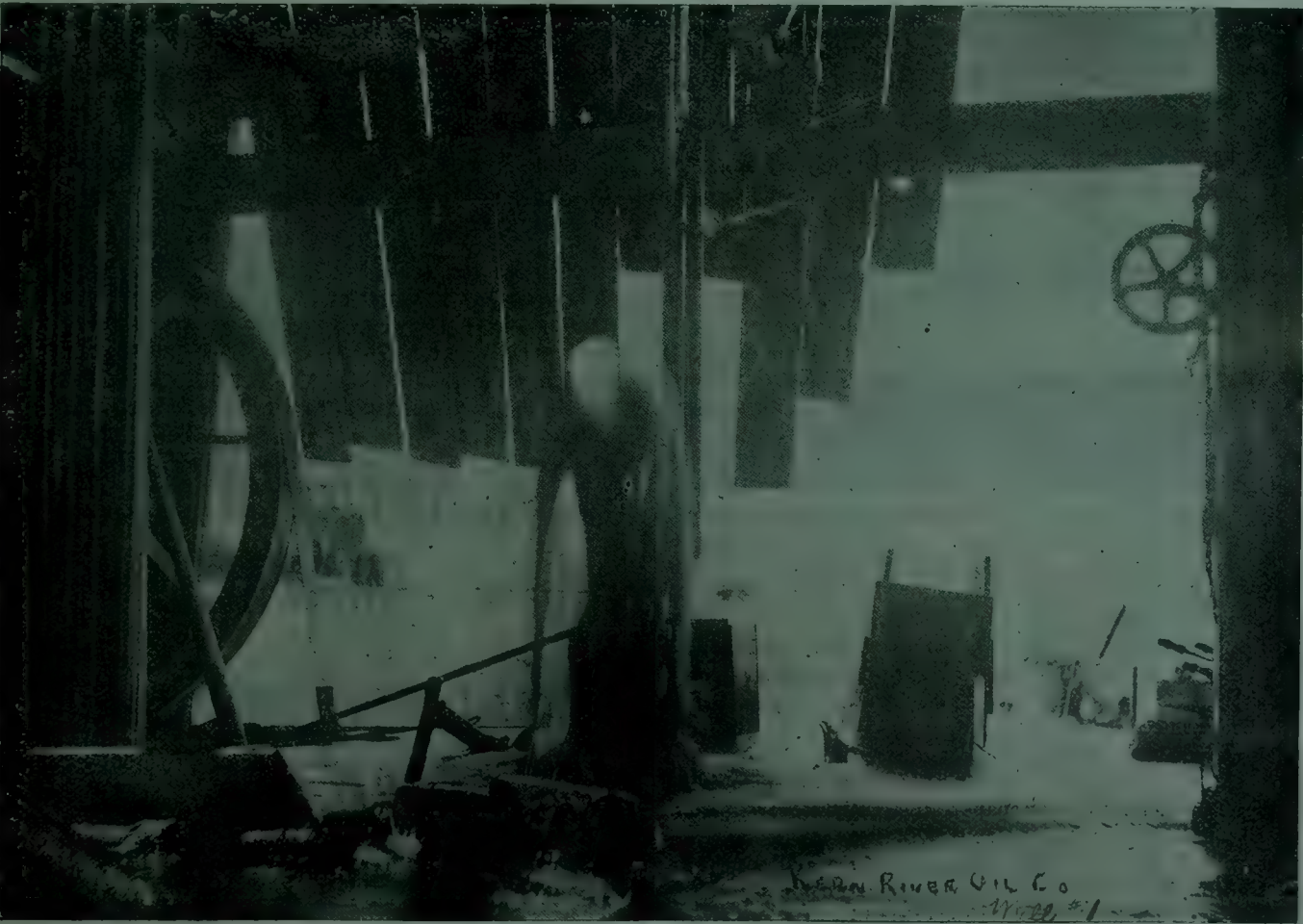
That it exists is evident to every asphalt man of California who has tried to sell his asphalt east of the Missouri. The minute a California asphalt dealer tries to press the sale of his product East he finds he is beset with the strongest kind of opposition. Dealers re-

fuse to buy our asphalt and use it as California asphalt. Many of them have bought and still continue to buy our asphalt, but they sell it and use it under another name. It is not laid on the streets of Eastern cities, in many cases, as California asphalt, but as Trinidad or some other kind—anything but California.

A few days ago the PACIFIC OIL REPORTER received a letter from the general agent of the Barber Asphalt company, at New York, in which was the following surprising statement, none the less surprising because coming from such a source. In the letter was the following: "It is quite impos-

well known fact that the company of which Mr. Rake is general agent is also one of if not the heaviest user of California asphalt in the Eastern States, and it is also a well-known fact that the agents of the Barber Asphalt company, located in the various cities of the East and West, are themselves highly pleased with California asphalt in the way it wears, and the ease with which it is laid, and are outspoken in favor of its general adoption both here and in the East.

The local representative of the Barber company is Mr. Gratz K. Brown, who speaks as follows about our asphalt:



One of the Gushers of the Kern River Oil Field. Showing the flow of heavy oil from which asphalt for pavement is made.

tude of hostility to California asphalt by all the dealers in asphalt in the Eastern states.

From Maine to Kansas city there seems to be a general determination to down California asphalt if it can be done, to keep it out of the market if possible, and to have all paving specifications so drawn up that California asphalt is excluded from competition wherever possible.

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That it exists is evident to every asphalt man of California who has tried to sell his asphalt east of the Missouri. The minute a California asphalt dealer tries to press the sale of his product East he finds he is beset with the strongest kind of opposition. Dealers re-

sible for us to tell how much or how little California asphalt is used in the Eastern states. For paving purposes it does not seem to be particularly in favor, and a few contractors of the writer's acquaintance who have used it do not speak very highly of its lasting qualities." The writer is Mr. James Lewis Rake, the general agent of the Barber Asphalt company in New York.

There are obvious reasons why Mr. Rake should not be willing to give unqualified praise to California asphalt as his company is undoubtedly the heaviest consumer of Trinidad asphalt in the United States. However, it is a

"There is no question about the relative superiority of our California oil asphalt over the bituminous rock pavement such as is used either in California or in the East, the Eastern bituminous rock pavement being known generally as Kentucky rock pavement. This last pavement has been tried again and again in the East and has been found to be very unsatisfactory as compared with the pavement made of asphalt. When our California asphalt is properly made, when care is taken with its manufacture, and time is given to it so that the asphalt retains its elastic, petrolene qualities no pavement in the world is its su-



perior. It has been tried again and again in California with the most satisfactory results, and I am sure that it will soon be regarded

who know it is published in the interests of the Federal company, and who know that its statements must be regarded accordingly. It

is forced up from below by gases or by pressure reaches the surface with nearly all the volatile substances out of it and is practically

face, but wherever it is found it is found mixed with all sorts of substances such as sand, earth, vegetable and organic matter of every description, in some cases more, in other cases less. When the mixture is asphalt and a clean, sharp sand mixed in just the right proportion, then we have a first-class bituminous rock, such as will make a superior pavement. When the Asphalt Journal states soberly that asphalt rock is composed of pure asphalt and pure white sand, why does it not say that perfect asphalt rock is thus composed, and then go a little farther and say that this perfect rock is seldom if ever found. Then it should go a little farther and state that this perfect asphalt rock can always be obtained by mixing the pure asphaltum, made of California crude oil, with the proper kind of sand which can be found in every State near almost every large city, and by mixing this pure asphalt with this pure, sharp sand in JUST THE RIGHT PROPORTIONS an asphalt pavement can be obtained that will stand the severest tests of climate and wear.

Nature is all right in her laboratory work when all the conditions are right. When the conditions are not right then her work to say the least is very unsatisfactory. This is the case in three-fourths of all the bituminous rock



Laying Asphalt Pavement on Grant Avenue, San Francisco.

as the only paving material that is fit to be used."

The Barber people in the East understand how the Trinidad men have worked up a prejudice against the California asphalt, and do not want to antagonize them too much. So they quietly order our asphalt by the car, yes almost by the train-load, and it is shipped East where it is laid as--what? Not as California oil asphalt, you may be quite sure. Yet there is but little doubt but that the best samples of asphalt pavement laid in the East to-day are made of California asphalt no matter what may have been the kind of asphalt which was claimed to have been used.

While the Trinidad men have been fighting California asphalt another crowd of asphalt men have been fighting both the Trinidad and California asphalts. These are commonly known as the rock asphalt paving contractors who, chiefly known under the name of the Federal Asphalt company, have been and still are waging a most bitter and vindictive warfare on every kind of asphalt that is likely to drive the bituminous rock asphalt from the market.

The rock asphalt people seem to have a newspaper back of them called the American Asphalt Journal. Instead of giving any credit at all to the Trinidad and California asphalts it condemns both in the most unqualified manner, and practically says that neither the Trinidad or the California asphalt is fit for paving purposes. The only redeeming feature about this paper and its contents is that it is read undoubtedly only by those

seems to be absolutely unable to tell the truth either as against the Trinidad or California asphalt, or in favor of the Kentucky rock. It is so manifestly full of misstatements that its praise has no more effect than its blame.

As an illustration of these misstatements it says that there are three kinds of asphalt pavements in use: one being a product of coal-tar, made during the manufacture of coal-gas; another a pitch asphalt, such as the Trinidad, which must be refined; another the asphalt rock, which is absolutely perfect for paving purposes.

According to this, California asphalt is not on the map. The paper apparently never heard of it. It will hear of it before it grows much older, and so will the Federal Asphalt company.

In another place the paper says editorially that "Artificial cement" (asphalt pavement) is composed of asphalt, petroleum oils, soluble salts, clay, sand and vegetable matter.

How is that for richness! And for a paper that pretends to be more or less technical.

Here is another: "Asphalt (bituminous rock) is composed of pure asphalt and pure white sand."

If that is not enough to jar the intellect of a wooden man, what would?

If there is any form of asphalt which is full of impurities of every sort it is that same bituminous rock. What is it? It is simply the oozing up from below of petroleum out of which the volatile parts have more or less evaporated, so that the residuum which

liquid asphalt. On the surface it becomes mixed with whatever lies on the surface. It may be that it does not reach clear to the sur-

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that is mined. Blumious rock is full of impurities. It contains all sorts of substances which when placed on a street in the form of asphalt pavement will wear out. San Francisco has miles of streets paved with rock asphalt and these streets are a disgrace to the city. They wear full of holes on account of the impurities in the rock. It makes no difference how much this rock is sorted the impure spots will be sure to be overlooked, and when put on the streets the wheels of the heavy wagons find them out sooner or later.

Even if there are no impurities the sand and the asphaltum are

some length on the matter, although he said he was reluctant to make a statement until he had become familiar with what had been said in his absence.

"I do not intend to stand for any manufactured asphalt," he said. "We have specimens of it laid in Syracuse, and it cracks up and breaks. I understand that out there in California they get the oil out of this stuff and then sell what is left for asphalt. We don't want that."

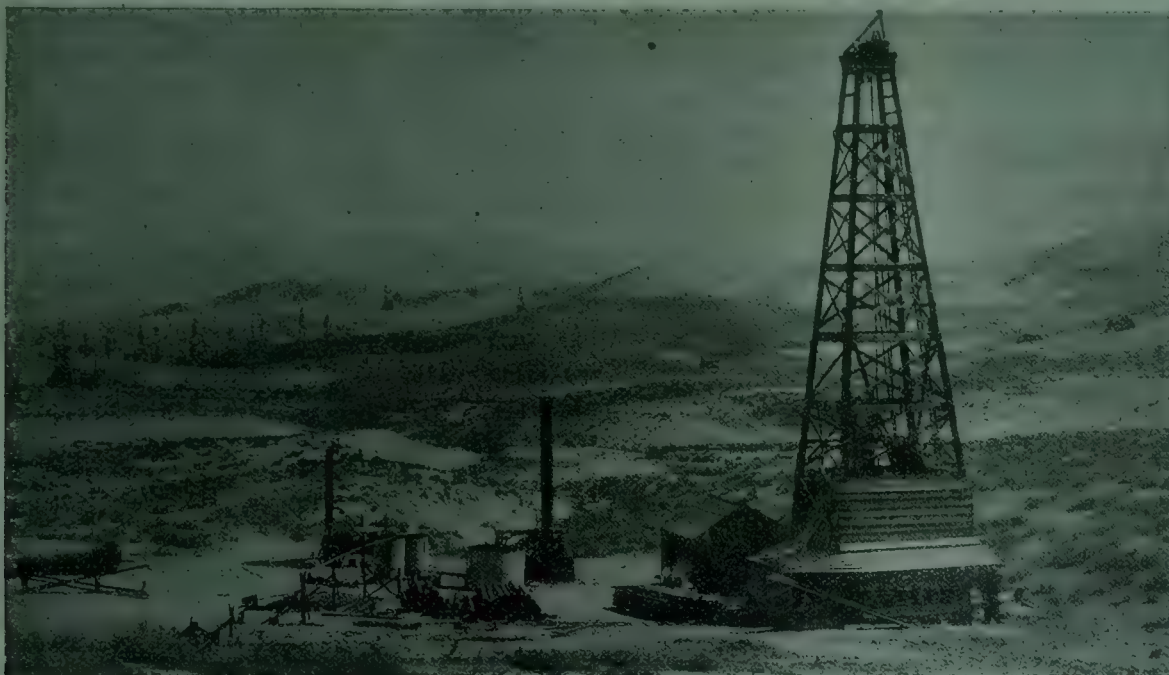
How is that for richness! If there is not a job for a fool killer in Syracuse then the fool can no longer be found.

If that is the idea people (and aldermen at that) in the east entertain of California asphalt, it is

new industry in the United States, no particular attention having been paid to it until the discovery of oil in California. Being a by-product suitable for paving streets and other purposes for which natural asphalt is used, the California producers of liquid asphalt have organized a selling agency to facilitate competition in consuming markets. This agency is also making efforts to recommend the material to consumers. It is also proposed to improve the quality of the liquid asphalt in hopes of eliminating the unfavorable impression which was made by the inferior grades marketed heretofore. A regular schedule of prices, f. o. b. San Francisco, has been agreed to, which appears reasonable for the Pacific Coast trade. When the high freight rate to

The cost of transportation has nothing to do with the case. It costs no more to refine our California asphalt and get it to the eastern cities than it does to mine, transport and refine Trinidad asphalt and get it to the eastern cities. It is simply a question of proving, as it will be proved to the men of the east, that our California refined asphalt is the best paving asphalt ever put on the market, and that when it is laid right it makes the best paving ever walked or driven over in the world.

"California enterprise should not be discouraged." Thanks, awfully. We appreciate your good intentions.



Just Ready to Commence Operations, Sunset District.

often not properly mixed by nature. If there is too little sand then the pavement is too soft. If there is too little asphalt the pavement soon disintegrates. The result is the same. The pavement soon wears out.

Of all the ignoramuses we have heard of the Hon. Frank Matty of Syracuse, N. Y., is the worst. Listen to this from the Syracuse Post-Standard:

"Alderman Frank Matty returned last night from New York, where he has been since the discussion arose concerning his effort to have California asphalt excluded from the list of materials for paving streets. To a Post-Standard reporter he talked at

high time there was a lot of missionary work being doing in the east in behalf of the California asphalt industry. "They get the oil out of this stuff and then sell what is left for asphalt." Here's to Alderman Matty. May his wisdom never increase.

Last, but not least, is the Engineering and Mining Journal of New York, one of the best publications in America on mines and mining. But it gets out of its depth a little when it speaks of asphalt, as the following criticism on an article from the PACIFIC OIL REPORTER clearly shows:

"Asphalt from the residuum of crude petroleum is a comparatively

eastern consuming points is added, however, the prices are nearly doubled. This is a disadvantage which will have to be overcome by reducing the cost of production to a minimum. Consideration should also be given to the fact that Trinidad producers, who supply the bulk of the increasing consumption in this country, are better situated to meet competition, as they employ cheap labor and pay a comparatively small ocean freight rate to New York or Philadelphia. Still, California enterprise should not be discouraged, because if it does not prove of a financial success it will at least add to the mineral wealth of the state."

If this is not damning with faint praise, what is?

If instead of handing out such a distressingly limp, cold hand of help, you would give us a hit on the jaw, we would like it better.

The California asphalt men are all right. Our asphalt is THE thing. The Trinidad and the Federal men know it, and they know this asphalt of ours is going to cut a mighty big swath in the paving business of the east before long.

A syndicate composed of Pennsylvania and West Virginia capitalists has leased 199 acres of land at Jennings, La., and will sink eight wells there. There are twelve producing wells at Jennings.

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## KEROSENE FROM CRUDE.

### A Successful Process Is Claimed to Have Been Recently Discovered.

It Is Claimed That a Superior Grade of Kerosene Can Be Obtained In Satisfactory Quantities From Our Heavy Asphalt Oil.

The Los Angeles Journal says that local oil operators were interested last week by the announcement that a process had been discovered by means of which a superior grade of kerosene could be manufactured from the heavy crude oils of California. Were this an assured fact it would mean untold fortunes to the present holders of wells, not alone in Los Angeles but where a strike of heavy crude oil was made.

F. H. Dunham, the former president and general manager of the New Franklin Oil and Refining company of this city, is the gentleman who is credited with this important discovery, and he states that the process is not only feasible, but it is now being used.

Kerosene is manufactured almost exclusively from the light grade oils produced in the eastern oil fields, and that these oils will only yield from 10 to 20 per cent illuminating properties at the most. According to Mr. Dunham, by his process it is possible to secure at least 50 per cent illuminating properties from the local oil, in addition to the asphaltum and lubricants.

This being the case, it is easy to compute the profits that would be realized by the installation of the Dunham process, especially in fields remote from the actual consumption, and where excessive freight rates compel the producer to accept a small price for his oil in order to compete with the fields more favorable for the marketing of their product.

A better illustration for demonstrating the value which a discovery of this kind would have upon the oil industries of this state, could not be found than in the Kern River fields around Bakersfield. Being remote from the consumer and dependent upon railroads entirely for shipment, the oil from these fields brings the producer on an average about 20 to 25 cents per barrel for the crude. If, however, it is practicable to refine from this crude oil a high illuminant, the cost of shipping will be about the same, but the net returns to the producer would be a profit, where he now gets next to nothing.

While the details of Mr. Dunham's discovery are carefully guarded, it is said that it principally consists of a fractional dis-

tillation, during which the heavy carbons are converted into light carbons and free carbons, which will result in a quantity of light oil and petroleum coke.

It is not a new experience for the oil industries of California to hear of the discovery of a process for changing the heavy crude oils into light high grade illuminants. These discoveries have been made and tried many times since oil first began to flow, but the results were invariably accompanied by absolute failure to produce it in a commercial quantity.

To those who have made a thorough study of the differences between light and heavy oils, a statement to the effect that the latter can be manufactured into high illuminant in sufficient quantities for commercial purposes, is received with a great deal of skepticism.

It is acknowledged that more than satisfactory laboratory tests have frequently been made in this direction, but when it came to manufacturing in large quantities it was found impossible to make the laboratory formula bring the same result. Of course it is just possible that Mr. Dunham has at last hit upon a formula that can be taken from the experimental stage and made of practical commercial value, but until it is demonstrated commercially, old and experienced oil men do not anticipate any sudden change in crude oil valuations.

Mr. Dunham proposes taking the plant of the Meridian Oil company, which is located near the Santa Fe railroad tracks and Joy street, and start active operations at once. There are two 100-barrel stills on the plant, and if it is found that his process is practicable these stills will be increased in number.

The report that agents from the Standard Oil company have approached Mr. Dunham with a view of preventing him from exploiting his discovery is most emphatically denied by that company, and E. S. Sullivan, general manager of the company at this point, states that nothing either verbally or in writing has passed between Mr. Dunham and his company regarding the discovery.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

### IT WON'T BURN.

Texas Has an Oil That Will Not Ignite.

Texas is now producing oil that will not burn. It comes out of the well on Kaiser Mound, near West Columbia, in Brazoria county, not far above the mouth of the Brazos river. Ex-Governor J. S. Hogg brought to Houston recently several cans of the oil. He made the statement in the rotunda of the Rice hotel that he had Texas oil just out of the ground that would not burn. It sounded a bit incredible, in consequence of which the governor invited a party of gentlemen out to witness a demonstration. Arriving in the yard, they found a pile of boards and shingles afire. The blaze reached up three feet or so. He then had a small can of this poured into the flames upon the burning wood, and pretty soon the fire was extinguished. The burning coals were included in the effective extinguishment. The ex-governor then stated that the oil had been valued by experts at \$5 per barrel, and that the well from which it came had a capacity of about three barrels to the hour. He further stated that it had puzzled experts to whom samples had been sent for analysis.

### Petroleum Possibilities.

In many sections of the west crude oil is about the cheapest product the land affords. There are oil wells in Indiana that have not proven particularly profitable to those who operate them. A farmer of that state has been experimenting and finds that crude oil is excellent feed for hogs, and that it makes them healthy and fat. It is said to be cheaper and better than corn. Pork is oleaginous enough at best, without putting the growing stock on an oil diet. In Southern California there are a great many oil wells which, owing to the low price of the commodity, are almost worthless. Most of them have a residuum of from 20 to 60 per cent of pure asphalt. If the hogs would eat that stuff the wells might be put in commission with prospect of profit. Perhaps a herd of hogs fed on the heaviest oil would absorb so much of the bituminous residuum that instead of being used for the table they might be cut up into squares to be used as a substitute for Belgian blocks in paving.—Utica Press.

The Indiana State Oil Inspection department is turning over to the State in fees about \$2,750 a month.

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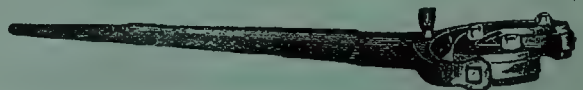
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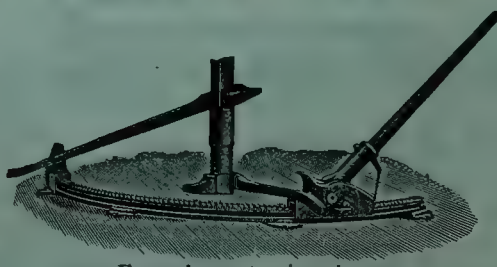
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**OIL IS RUNNING**

It is Now at Mendota.—Work at the Richmond Refinery.

The oil in the Bakersfield pipeline will be flowing into the tanks at Mendota by the time this paper reaches its readers, if not before.

On Tuesday the pumps were started at Lethent, the tanks at that station having been filled. On Wednesday the oil was flowing all right and should reach Mendota Thursday unless the pumps were obliged to shut down from some slight cause, the main difficulty to be expected being in the possible trouble with the gaskets on the pumps. This difficulty is a trivial one and is easily remedied.

The Coalinga line is now laid, and the oil is flowing into both the upper tanks above the California Oilfields Limited, and in the lower tanks near the flowing wells of the Esperanza. The oil in the upper tanks now is the light oil, and it is probable that when one or both of the upper tanks are full this oil will be turned into the pipe-line and sent on toward Point Richmond. The entire extent of the pipe-line is now tested and ready for the oil.

The work of adding to the capacity of the refinery is being pushed with all speed, and in a short time this refinery will have a total still capacity of 20,000 barrels. As it takes an average of forty eight hours to run the oil through the stills the refinery will be consuming oil at the rate of fully 10,000 barrels a day. Although much of this oil will be brought to the refinery from Ventura and Redonda a large per cent will come from the Coalinga field through the pipe-line the steamers not having a sufficient capacity to supply all the oil wanted from the southern ports.

Point Richmond will soon be a very busy place and the amount of its yearly product and output will be enormous.

**Refinery Attached.**

Sheriff Kelly has prepared the papers for advertising the sale of the Clark Refined Oil company at the Kern River field under two executions issued by the Superior court. The judgments are in favor of Herron, Rickard & McCone, for \$460.77 for supplies furnished and the Associated Oil company for \$733. There are also a number of claims, including one by B. Former for \$100 for labor. This is preferred claim and takes precedence over the other.

The property consists of a large number of barrels of oil, asphaltum, stills, machinery and real estate. The company has been operating for some time at Kern.

Up-to-date maps of Kern River, McKittrick, Sunset Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**THE EASTERN MARKET.**

Last Week the Price of Crude Was Greatly Decreased.

The announcement of a cut of 3 cents on the price of crude at the wells fell like a wet blanket on the producers and caused no end of comment. An advance was confidently expected, says the Oil, Paint and Drug Reporter, and the decline was therefore the more welcome. Producers have been pushing development operations with vigor under the belief that prices would advance, many pinning their faith on \$2 oil before the close of the present year, as it seemed apparent that production could not be increased, while stocks were steadily growing smaller. Whether the decline in prices will discourage field operations may be doubted, as present prices insure good profits on the present average production of the new wells, but it will doubtless tend to check the search for oil in untried sections, and those who had based operations on still higher prices may defer drilling. Operators in the fields are now at a loss how to regard future prospects, contending that the conditions warrant higher prices, and yet they see the price going against them. Little is now heard of \$2 oil, and the fear is entertained that there may follow other announcements of reductions in price. The situation in the fields shows no important change. About the average number of new wells have been completed during the past week, but they are, for the most part, small producers, while the percentage of dry holes continues large, and it is probable that the results of operations during the present month will show no improvement over those of

April. Reports of Texas are more satisfactory, several new wells being reported from Spindle Top and Sour Lake, and in each case it is claimed the production is larger than is that of the wells now pumping. Some of these are said to be flowing wells, and instead of decreasing the output of oil has increased daily, while very little water is encountered. The outlook for these fields now appears more favorable than at any time since oil was first discovered at Spindle Top and the business is conducted on a sound basis, wild speculation having been for the most part eliminated.

**The Utah Field.**

The following is the latest news from the Emery county, Utah, oil field:

The two plants near Sunnyside, the McWhorter and Ketchum, will resume operations about the 1st of June, having been held back on account of the snow.

The Oil City people, near Desert Switch, are drilling again. The camp was recently visited by a delegation of interested persons from Oil City, Pa. These people, who are experienced in the oil business, were highly pleased with the Utah proposition.

Nothing definite has been recently heard from the California-Utah people, which have a well south of Green River.

Colonel J. M. Duffy, the Beaumont, Tex., oil king, and ex-Governor Hogg of the Lone Star state, are expected to start something doing on their holdings here in a very short while.

The Grand Union Oil and Petroleum company is also preparing for extensive operations, having some of the best land in the district, as well as property at Sinbad Basin and also up in Wyoming fields. This company has a large area of land, on which is a deposit three feet thick of a black tar-looking substance carrying 30 per cent oil.

The La Grand Oil company is preparing to erect machinery and commence active work.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

Charles L. Clark, a director of the Triumph Oil company, operating in the Thamesville, Ontario field, said: "Owing to the shortage of the oil supply in Canada the Petrolea Refining company is going to Ohio to buy 100,000 barrels of oil. The price of oil in Canada is now about \$2.03 per barrel, with a good indication of it going up to \$2.50 before the summer is over."

The Standard Oil company is said to have bought of Norman Gilbert, Richard Duncan, D. E. Kenyon and J. L. Kidder leases on 400 acres of oil territory near Penoto, Wells county, Ind., for \$16,500. There are two producing wells on the leases with a daily production of twenty barrels.

The price of oil at Houston, Tex., ranges around or just under 80 cents on the cars. A good many deals have been reported at 80 cents on the cars and the demand is strong.

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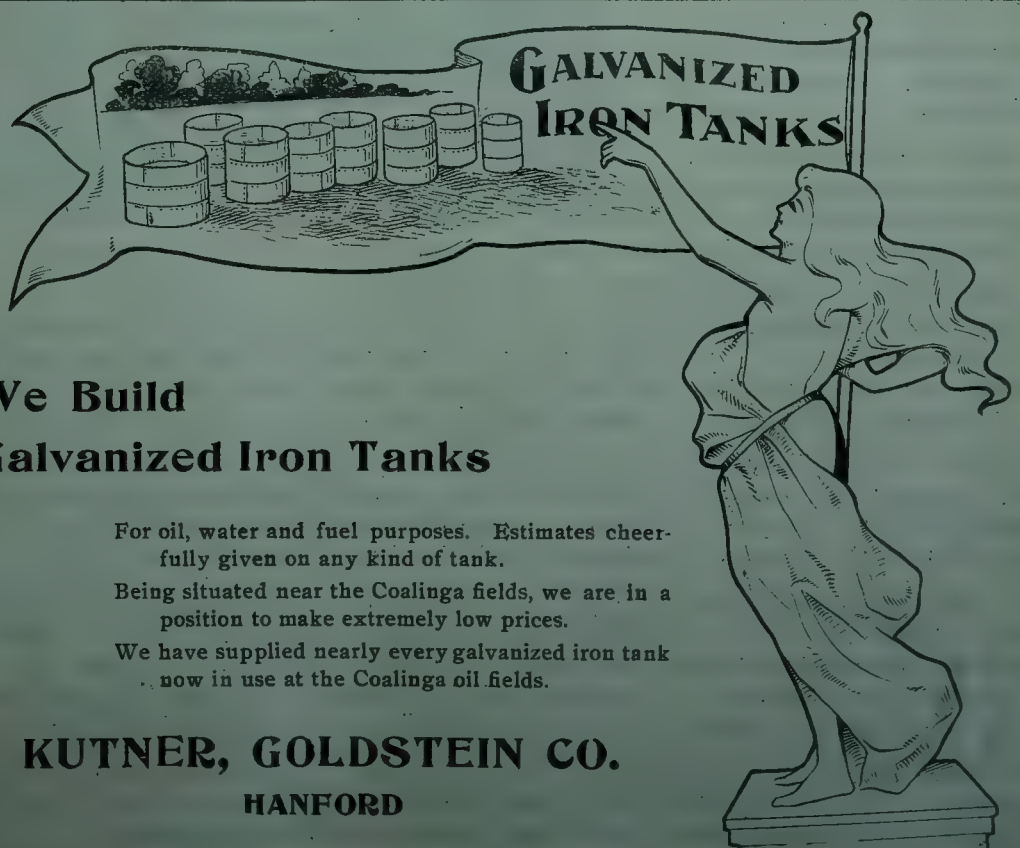
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The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
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SATURDAY.....MAY 30, 1903

Librarian Frederick J. Teggart, of the Mechanic's Institute Library, has prepared a valuable reference list of all the publications in the library which refer in any way to petroleum and asphaltum. The list is carefully indexed, and is a surprise to one not familiar with the amount of literature in the library bearing on these important subjects.

Of all the ingenious schemes that have appeared on the stock selling horizon of San Francisco, that being engineered by Attorney Clara Foltz is the most unique and apparently prospectively successful.

The purpose of the scheme is to sell the stock of the exceedingly doubtful Alta Oil & Development company by means of the so-called Oil Fuel Union.

About two months ago Clara Foltz brought the Union into existence and announced a meeting in the Academy of Science hall. The meeting was quite well attended, and at the request of Clara Foltz Dr. C. T. Deane, of the Petroleum Miners' Association was induced to preside and make a very enjoyable and instructive talk on oil. The principal address of the evening was delivered by Paul W. Prutzman, which address was so valuable and dealt on subjects of such interest to oil consumers that it was reproduced in full in the PACIFIC OIL REPORTER.

Nothing was said at this meet-

ing to indicate the fact that the Oil Fuel Union was a stock selling scheme for Clara Foltz's oil company although some strangers present were earnestly requested to invest in one of her oil schemes. They did not bite, however.

Last week another gentleman was asked to preside at the second meeting of the "Union", and on being told that Mr. Prutzman was to deliver another address he consented to preside.

On Monday, however, he was astonished to receive a nice looking pamphlet or folder which contained the Constitution and By-Laws of the "Union", list of officers, etc., and which had on the last page the statement that "Pursuant to Resolution No. 1, the Oil Fuel Union, until further notice, will confine its efforts to promoting the sale of the stock of the Alta Oil and Development company."

It is needless to add that the officers of the "Union" and the "Alta" are identical, and that Clara Foltz seems to be the chief in authority and prime mover of both organizations.

The funny part of it is that in the same pamphlet it is stated that the purposes of the "Union" are "to collect and disseminate information concerning petroleum, and all matters connected therewith, more particularly concerning the production, consumption, transportation, refining, and the mechanical devices and appliances connected with the use of petroleum and its by-products; to awaken the public interest in matters pertaining to petroleum and to keep the members of the Union thoroughly in touch with the oil industry."

That is all right so far; but it goes farther, and finally winds up by confessing practically that the sole purpose of the organization is to sell the stock of the Alta Oil company.

We know very little about the worth of this company. What we do know about it is not at all in its favor and is enough, without looking into the merits of the company, to make us advise any man to refuse to purchase its stock.

But if all we knew about it was that it used the Oil Fuel Union as a means of selling its stock, and tried to make innocent parties unthinkingly the agents of their stock-selling schemes, we should pronounce the Alta Oil company as absolutely unreliable, its management untrustworthy, and liable to injure rather than benefit any one who might be induced to purchase its stock.

On general principles we say: "Steer clear of the Alta."

It is doubtless needless to add that both the gentleman who was asked to preside over the meeting of the Oil Fuel Union, and Mr. Prutzman, who was to give the

main address, suddenly had other engagements as soon as they discovered they were being used simply as the agents of Clara Foltz in her new scheme of selling presumably worthless oil stock.

The oil situation in California, from almost every way in which it may be regarded, is quite satisfactory.

The rate of oil consumption is increasing with marvellous rapidity.

From a total consumption of 4,329,950 barrels in 1900, we consumed nearly 14,000,000 barrels in 1902, and to-day we are consuming at the rate of nearly 18,000,000 barrels. This year there will be at the lowest estimate over 20,000,000 barrels of California crude petroleum consumed. Next year the consumption will be 30,000,000.

Every month sees a greater degree of oil consumption from the railroads as the number of oil-burning engines increases. Almost every week another steamer is added to the fleet of oil-burners. As business increases throughout the State every factory is using more oil than it did a year ago, and the number is constantly increasing. The exports to the Hawaiian Islands and to Alaska are now beginning to assume great proportions. The number and capacity of the oil refineries is constantly being enlarged. The 1,500 tank cars now in use on the railroads are kept moving without a day's cessation from travel, and these 1,500 tank cars are only able to furnish consumers with just oil enough to meet the immediate demand. To-day there is not in the tanks scattered throughout the State more than enough oil to last ten days at the outside. Of course there is an immense amount of oil in the tanks at Bakersfield, but the oil in the tanks of the factories, the railroads, the steamship companies and the refineries, which has to be transported to the points of consumption by tank cars is not in quantity more than will last these consumers for ten days or at the outside two weeks.

In view of these facts it is no wonder that the Standard and the Associated and the other main dealers in oil are slowly putting up the price of oil. Neither is it any wonder that the prophesy is generally made that the price of oil received by producers generally will soon be very materially increased.

The price to-day at Bakersfield and Coalinga at the wells is practically 20 cents. It ought to be higher.

Who fixed the price at 20 cents?  
Was it the Standard?  
Was it the Associated?  
Was it the Union Oil company?  
Was it the Pacific Oil and Transportation company?

Was it any one or any two or

any combination of buyers that fixed the price of oil at 20 cents?

If the truth was known was it not the sellers—the producers themselves who fixed the 20 cent price of oil?

Is it not a fact that in many instances producers rushed to the front and offered to make contracts at 20 cents, and are still rushing to the front to make these contracts because they are in need of ready money, and think that now is the time to sell, because the Standard's pipe-line will soon be in operation to the bay, and that then will be a chance to fill a lot of tanks that are now empty.

Producers are selling oil to-day at 20 cents not because the oil is not worth more but because the producers are willing to pay a premium to buyers if the buyers will buy their oil.

With the increasing rate of consumption oil to-day ought to be and is worth at least 25 cents at the well. He who sells it for less is simply making a present to the buyer, and every buyer knows it.

We do not want to be considered as talking at any particular company, or at any field, but we will take the Coalinga field as an illustration.

Probably in the last two months over 1,500,000 barrels have been contracted for at 20 cents. Suppose that there is a profit—a small one on oil at this figure. Did it ever occur to you that where one dollar has been expended in the Coalinga field successfully in the attempt to find oil, that \$10 at least have been expended ineffectively in this search for producing wells?

Did you ever consider that the 2,250 wells in this State that are producing have cost on an average, and a very low one, at least \$4,000, and that the sum total of this cost of producing wells is \$9,000,000.

Consider this, and then think that this \$9,000,000 is not one-third or one-half the sum that has been expended in this State unsuccessfully in the vain endeavor to strike oil.

This is the amount spent in drilling alone. It does not include the amount spent in the purchase and lease of land.

When we consider these things it is folly to say that because you have two or more wells than can produce 100 or 200 barrels a day that the oil is worth no more than 20 cents.

Why should your oil be sold to the manufacturer at 70 cents a barrel in San Francisco when he would rather pay \$1.25 a barrel for it than go back to coal?

Every time an oil consumer buys your oil in San Francisco at 70 cents he practically puts 50 cents in his pocket, and thanks—someone, that the necessities or foolish competition of the producers in the early days of the oil



business have enabled him to make that much clear money.

We would like to say a word or two about over-production and the number of capped wells that are staring the producer in the face in the fields that as yet have no transportation, but space forbids.

It is enough to look at the facts as we have presented them.

Two things ought to be done and that right speedily:

First: The Standard, the Associated, the Union and all the other big sellers and handlers of oil ought to get together and arrange among themselves that they will give away no more oil at the rate of 70 cents a barrel in San Francisco. Say it, mean it, and stick to it.

Secondly: The producers of oil ought to have sense enough, ought to have enough faith in one another, ought to have business judgment enough to get together and agree among themselves—come what may, not to sell any more oil at the wells at the rate of 20 cents a barrel.

It is enough to make a man sick of the oil business to think of thousands of barrels of good Coalinga, 20 gravity oil—refining oil at that, bringing at the wells only 20 cents.

We suppose this article will make us a lot of enemies in certain quarters, and a lot of d. fs. will be sending in their notice to quit. All right. The more notices of this sort we get, the more we will receive of the other kind. So we don't worry. Send them along.

But if any man—any oil producer, wants to take a page in this paper to argue that he is justified in selling any more oil at 20 cents, he can have the space, and if he needs the money we will pay him regular space rates for his article.

Here's your chance.

### Recent Patents.

The following recent patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Drilling apparatus, J. C. Swan, Marietta, O.; No. 726,111.

Oil tank, B. F. Collins, Clarksville, Texas; No. 726,142.

Well drilling machine, J. R. Lewis, Weatherford, Tex.; No. 726,174.

Well tube, E. P. Fox, Lake Arthur, La.; No. 726,418.

Non-explosive oil can, T. J. Voorhies, McDonald, Pa.; No. 726,595.

Casing perforator, J. J. Brinkman, Bakersfield, Cal.; No. 726,625.

Agitator for oil wells, A. B. Gahagan, Glade Mills, Pa.; No. 726,899.

Clay-cutting sand-pump, A. J. Blamette, Downey, Cal.; No. 727,072.

Bailer, Lebreus Jones, New Cumberland, W. Va.; No. 727,375.

Wire rope socket, Edward Double and F. J. Karten, Los Angeles, Cal.; No. 727,759.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## OIL IN STRANGE PLACES

It is Discovered in Most Unsuspected Localities.

In the almost universal search for petroleum there will be some surprises similar to that which attended the opening of the Beaumont field. Oil will be discovered in most unsuspected localities. Places now barren and deserted will become prosperous and populous through the revelations of the drill, if we may judge the future by the past. Nature is no respecter of localities. She is quite as likely to underlay the desert with rich stores of oil as to plant them under the most fertile fields.

When the oil excitement was at

tained, commercially, from peat, exactly as it is obtained at the present time from the distillation of bituminous shale. So that it is still possible that Ireland may be revolutionized by a petroleum industry of some kind. Quite apart from the question of the possibility of oil being discovered in Ireland, it is well worth considering whether Ireland might not become the home of a great business embracing the manufacture of petroleum-saturated peat fuel blocks. A properly equipped briquette making factory, established on one of the Irish rivers nearest to the most convenient and prolific of the bog-peat areas, would be able to profitably export fuel to the manufacturing centers of Ire-

on the map. New names will be added to the geographical vocabulary; new towns and industries will spring up; an added population will be given to what is now a semi-wilderness. The changes that the discovery of petroleum brings are quick changes but the results usually outlast several generations.

### The Kansas Oil Field.

The Home Oil and Gas company drilled in a splendid oiler on the Houston lease Saturday afternoon. The well was shot the same day by the Western Torpedo people with the most satisfactory results. Forty-four feet of sand was drilled through at a depth of 784 feet. After being shot the oil rose in the casing 650 feet and despite the efforts of the drillers could not be appreciably lowered by balling. After operating the bailer as fast as possible for some time the amber fluid was found to have been lowered less than ten feet. A heavy scum was placed on the river for quite a distance. The bringing in of this well is further evidence of the fact that it is absolutely necessary to drill repeatedly to locate oil. The Houston tract has been drilled on before and pronounced dry territory by expert drillers. No. 2 on the Houston lease has been located 300 feet due south of the present well and the rig will be torn down and moved at once. The Home company is, as its name suggests, strictly a local affair, having been organized and financed by Chanute business men exclusively.—Chanute Daily Tribune.

The Standard Oil company is rendering valuable assistance in the development of the Knox county, Kentucky, oil fields. It has assigned fifty tank cars to Barbourville, to run between there and St. Louis, Mo., where the oil is to be refined.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



Sixteen Gravity Oil Flowing from Trough in Kern River District.

its height there were predictions of oil wells in Ireland, and even reports that oil had been struck near Dublin. Nothing would be more surprising to the generality of mankind than to hear that Irish bogs had become an oil field bonanza. Yet stranger things have happened. An expert has said that the decomposition of vegetable matter under favorable conditions does undoubtedly produce both gaseous and liquid hydrocarbons, and that traces of oil in the neighborhood of peat deposits are not unknown, but he thinks it futile to expect to find oil in quantity in the free state in the neighborhood of peat bogs. It has, however, been demonstrated that by distillation oil can be ob-

land and in time secure the favorable attention of the admiralty and manufacturers and ship-owners of England.

The rapid changes that are taking place through the development of this great industry are strikingly illustrated in the recent history of the Alaska oil fields. Two years ago, says the Paint, Oil and Drug Review, it was not suspected that petroleum in commercial quantities existed in Alaska. Now, it is conceded that the oil fields of that country are of great importance, and men and machinery are going in there with the confident expectation of developing rich properties. This involves the expenditure of large capital and the making of many changes

## LOOK OUT

FOR THE

### SPECIAL EDITION

OF THE

## PACIFIC OIL REPORTER

ON THE OIL FIELDS OF

## WYOMING

To be issued on June 6th.

Orders for advertisements should be sent at once to our Wyoming representative.

E. S. EASTMAN

Evansston - - Wyoming



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### COALINGA.

COALINGA, Cal., May 25, 1903.

The Caledonian Oil company spudded in the early part of this week on well No. 2, and work will be pushed along uninterruptedly until its completion.

Section Seven Oil company is rigging up for No. 2 to be spud in when No. 1 is completed. The York-Coalinga is also rigging up for well No. 3 to begin drilling soon.

Kutner-Goldstein Co. have the plumbing contract for the work to be done at each of the several pumping stations along the P. C. O. Co.'s pipe-line from Pond to Vernalis inclusive, which includes almost all of them.

The Union Oil company has subleased the  $\frac{3}{4}$  of the  $\frac{N}{2}$  of section 13 20-14 from C. F. Iredell and will begin drilling on it at once. The rig for well No. 1 is now being built. Mr. J. Armstrong has been awarded the contract for putting up the rig.

The Twenty-eight Oil company has about finished its No. 7 well, and although it has not yet been perforated or pumped, the manager is positive that it will exceed 250 barrels in its daily output which would be a little better than the other six wells of the company. Work on No. 8, is being pushed right along.

McClurg & Claypool and the Elzuma Oil company have each brought in another well equalling if not exceeding the production of their other wells. Both of these companies will continue drilling until their twenty-acre leases on section 31 are pretty well covered with derricks. The wells in this locality average in production about 200 barrels.

After laying idle for over a year, the Mt. Hamilton Land & Oil company, located in Alcalde, has resumed operations. Seventy-five feet of hole had been made at the time it shut down and now the company expects to continue uninterruptedly until completing the well. Mr. W. H. Kerr, formerly manager of the Grant Oil company, has charge of the work.

Mr. W. A. Rockwell is now running a stage to section 28, the Caribou and California Oilfields Limited companies, leaving town soon after the arrival of the daily train. This is a convenience to the men working and operating in that section of the field as well as to the visitors coming to the field. Mr. Rockwell has his stand at May's General store opposite the street from the depot.

The two 55,000 barrel tanks of the Southern Pacific railroad company at Ora have been finished this week and the tank builders have departed. The company and the Union Oil company will begin work at once erecting two of the most improved loading racks on the north side of the track. Interested parties are still in suspense as regards the pipe-line for the railroad company's tanks.

Well No. 7 of the Independence Oil company in which the tools were lost about two weeks ago and could not be regained on account of the heaving sand coming in through the perforated casing, has been abandoned and the derrick and rig moved ten feet to one side to begin on another hole at once. This was not a new well but one that the company was deepening after being pumped for some time.

The Pleasant Valley Stock Farming company, that owns much of the proven

oil land in the southern portion of the field have decided to commence drilling on the SW  $\frac{1}{4}$  of section 6, just south of the Esperanza company. The company contemplates putting down six wells, work on the first two to begin immediately. Without question section 6 is one of the best oil sections in this field as has been repeatedly demonstrated by the Esperanza's flowing wells and the neighboring well of the Penn-Coalinga Oil company.

The main pipe-line from Mendota over to Coalinga has been completed this week and is ready to ship oil through to Point Richmond. The following oil companies have been connected with the Standard tank on section 6 and are now delivering their oil there: Penn-Coalinga, Esperanza, Philadelphia-San Francisco, McClurg & Claypool, York-Coalinga, Elzuma; and section Seven Oil company will soon be connected. Owing to a shortage in pipe the line connecting the tanks on section 6 and 21 will be delayed for a little time. The branch pipe-line connecting the California Oilfields Limited on section 27 is now flowing oil from this company. Another branch line will be laid to section 28 to connect it with the tanks on section 21. A pumping station will be established on sections 27, 28, and 6, and just as soon as the pipe arrives it will only be a week at the most before all lines of the Standard company in this field will be completed and oil shipped through all of them. Since many of the companies are already shipping oil into the section 6 tank the company will have to hurry its operations to make room for the oil. At the most the delay cannot last for more than one week.

### COLUSA.

The Bear Valley Oil company's well was down 1,270 feet when the work was suspended. The hole was perfectly dry and the amount of gas was greater than in the Smith & Gorrill wells. A 2,500 foot cable has been installed and this shows this well will be drilled much deeper.

W. E. Youle, the oil well contractor, arrived at Arbuckle last Sunday, and after spending a few hours proceeded to Williams, where he was requested to assist the Williams Oil company to select a site for a second well. A very favorable location was found near the Mt. House. He came back to Arbuckle on Thursday to make arrangements to drill a second well in Colusa county. This will be started in a couple of weeks. The place chosen is in section 2, 13-5.

### FRESNO.

Several prominent Hanford oil men have become interested in the Huron Oil fields and intend investing in the near future in that locality.

### FULLERTON.

The Fullerton road district will soon have over thirty miles of oiled roads.

The Fullerton Oil company has a spouter, No. 3. The well commenced to spout last week and kept it up for several days, and since then it has spouted at the rate of 120 barrels a day, and at times throwing the oil from forty to fifty feet over the rig. A dam has been built across the canyon to hold the oil, after which it is pumped into the tanks.

### KERN

F. E. Mannell is now drilling in McKittrick.

The Junction is drilling a new well in Kern River, on 9, 29-28.

The Charter Oil company has started on its No. 2 well in Sunset.

The Jerome Oil company will soon drill in the Temblor district.

The Paraffine will drill a new well on its property in the Temblor district.

The Petroleum Development company is drilling a new well on 4, 29-28, in Kern River.

The Monte Cristo paid a monthly dividend of 1 cent per share last week. The dividend amounts to \$5,000.

The Southern Pacific has connected its tanks with the loading racks at McKittrick and is now delivering its oil in the cars.

The McKittrick Oil company shipped out thirty cars of oil during the past sixteen days. The drill is making rapid progress in well No. 6 and has now reached a depth of 425 feet.

The San Francisco & McKittrick has perforated No. 4 and has thus added another good producer to its list. The company has three good wells and will continue the development of its tract.

The Associated Oil company has made all preparation for considerable new work in the McKittrick field. Five new rigs have been built and others will be added as rapidly as new wells are completed.

The Associated Oil company is now drilling wells on the Green & Whittier and the Central Point in the Kern River field and on the Del Monte at McKittrick. More work will be taken up in the future.

The R. B. Robinson company, in which Messrs. Morton, Robinson and Ritchie of the Potomac Oil company are interested, has just completed the drilling of Nos. 9 and 10 for the Union Oil company on the Claremont property on 32, 28-28, at Kern River. It is now drilling Nos. 11 and 12.

The S. P.'s efforts to secure a good water well on its holdings near the San Francisco-McKittrick have been very successful, an abundance having been secured in its new water well. Owing to the scarcity of water in many portions of the field such a discovery is often regarded as very valuable.

The Occidental Oil company is ready to resume operations on its property at Sunset as soon as facilities are provided for delivering the oil at the shipping point. The construction of a pipe-line or the extension of the railroad will bring renewed activity to the northern portion of the Sunset field.

The Gould Central Oil company, which is operating in the McKittrick and Temblor districts, has levied an assessment of  $\frac{1}{2}$  cent a share on the capital stock of

the corporation. The assessment became due on May 18th to Secretary Henry M. Whitely at his office in San Francisco, and will be delinquent on June 18th.

The Chico Oil company a few days ago struck a fine light oil of about 60 per cent gravity in its well about nine miles southwest of Sunset. The oil was struck at a depth of 1,507 feet and produces about ten or fifteen barrels a day, and the company will continue work in the hope of getting a larger quantity, the quality being all that can be desired.

In the west side districts, particularly the McKittrick and Sunset fields, there is more than the usual stir in the development line. Many new rigs have recently been erected and more drills are in operation now than for months past. A number of new operators have recently invaded these districts, and the prospects are most favorable for a busy season.

The Potomac Oil company has just finished its well No. 31, at the Kern River field, and has nine wells in operation in the field, besides others at Summerland and other points, making up the total number of 31. The company completed its new 7,000 barrel tank for shipping last week. All its wells at Kern River are being pumped to their full capacity.

The Diamond has perfected all of its plans for drilling ten more wells and constructing one or two large reservoirs, the probable cost of the improvements being not very far short of \$100,000. Bids for the new work already have been submitted and an acceptance will be made at an early date. The contractors will be required to complete the work within six or eight months.

The newly elected directors of the Illinois Crude Oil company have elected Timothy Spellacy president, C. S. Young vice-president, and J. Benson Wren secretary. The company has six wells completed and is delivering its product under contract. Development work will probably be resumed later in the season and a number of new producers added to its list.

The shipments of oil from McKittrick are steadily growing larger and the daily consignments are all the way from twenty to thirty-five cars. This is by no means the present production of the field, but considering the fact that many wells are not reached by the pipe-lines and several owners are yet marketing their product the record is very satisfactory to those interested in the field.

The Fulton Oil company, the latest operator in the Sunset field, is making splendid progress with the drill. Two

**DEBENTURE SURETY COMPANY**  
INCORPORATED

Rialto Building  
San Francisco, California

WE BUY, SELL and LEASE proven oil land; drill wells; buy, bond and lease, incorporate and finance oil and mining companies, and act as Trustee and Fiscal Agent.

We sell stock to develop oil and mining companies, also dividend paying stock. We hold as Trustee for oil and mining corporations almost 2,000,000 shares of their capital stock in a TRUST FUND. If any company fails, we, as Trustee, take up its stock and issue to its stockholders stock of the successful companies from the Trust Fund. Thus a buyer of stock of any company has an interest in a number of developing oil and mining properties. Stockholders have a pro rata interest in the enormous Trust Fund created for their protection. As Trustee and Fiscal Agent we control the Trust Fund absolutely that guarantees protection to stockholders in each individual company.

Maps, charts, printed matter, sent on request. Correspondence solicited. Mention this paper.



wells are now down over 700 feet and an unusually strong flow of gas has been struck. Two or three blow outs have resulted and though the force was tremendous no serious consequences have resulted. The Fulton is drilling close to the Maricopa, on which tract is located one of the very best wells in the Sunset field.

The Southwestern Refining company has completed the brick work on its refinery at the Kern River field and is now waiting for the arrival of the stills, which were expected some time ago, but have been lost somewhere on the railroad. They have been traced beyond New Orleans and there lost track of for the time being. The company had hoped to have the refinery completed by the 1st of June, but now sets the date for July 1st instead.

W. R. McMurdo and a party have gone to the Cuyama country in the territory along the Midland Pacific's line, for the purpose of locating and surveying a large body of land for Bakersfield parties who have become interested in the oil prospects in that region. Among those interested are some of the leading business men in Bakersfield and Kern who are locating in the country west of Sunset, and a great many others are already located there. The reports of oil being struck by companies operating in that region have greatly stimulated interest among oil men who are desirous of entering and trying their fortune in new fields.—Californian.

A meeting of the Tres Sierritas Oil company was held in Lemoore on Monday. Representatives of a Pennsylvania syndicate and of Fresno capitalists were present at the meeting to consider the matter of negotiating with the Tres Sierritas and other companies owning lands in the Devil's Den district with a view to opening up development work in that territory, they to receive as remuneration therefor a landed interest in said district. Should the deal be consummated, the work of sinking wells to test the oil-producing capacity of said district will at once begin and a thorough test of the field will be made by the promoters of the new enterprise.

The Rio Bravo Oil company has filed its answer to the suit of J. E. Gray, denying that the latter drilled the well in question properly and in a satisfactory manner to the depth of 1,000 feet, or that the drilling was continued further by agreement, or that it paid him \$800 for the work, or that \$880 or any other sum is still due. It alleges on the contrary that there was a complete settlement and compromise arranged between them, and charges that through the incompetence and negligence of the plaintiff his tools became lost, and the latter abandoned the well, and that the company recovered them at its own expense and the plaintiff accepted the tools in payment for his work.

Interest in the Sunset field is now centered in the early completion of the big ten-inch pipe-line, which is to run from the Sunset refinery through the field north to all the large producing wells of the field. A gentleman who is the manager and superintendent of one of the large producing companies stated this week that the line would be in a condition to receive oil some time in July. When the line is in operation it will give the companies who have large amounts of oil on hand, such as California Fortune, the Monarch, Obispo, the Federal Crude, the Union, and similar companies that have good wells, an opportunity to dispose of their oil, and place them in condition to pay dividends. The Union, which purchased the forty acres formerly owned by the Stratton, adjoining the California Fortune on the northeast is preparing to put down six wells.

There was an error in these columns in

the issue of the 16th, when it was stated that the California Consolidated Oil company was about completing its first well. The name of the company should have been the California Combined Oil company. This company has now for its president Mr. Z. N. Goldsby, one of the most reputable business men and attorneys of California, a gentleman whose integrity and honesty is unimpeachable. If absolute uprightness in management has anything to do with the success of a company the California Combined Oil company is now in a good way for complete success. Mr. G. F. Abbott, a former director, and also interested in the management of the now notorious Gray Gander Oil company, is no longer connected with the California Combined Oil company, which company will soon have completed its first well, and is ready to start on its No. 2.

#### MARIN.

The Bolinas Bay Oil company is down 1,800 feet on their well No. 2. They expect to strike rich oil sand, carrying a light refining oil, at about 2,000 feet or less.

#### MONTEREY.

The Combined Oil and Land company began active operations at their John Summit claim a week ago last Thursday. This location is situated about nine miles west of San Lucas, near the summit of the Jolon grade, and is only one of a large number of promising oil properties owned by this energetic and progressive corporation in Monterey and Los Angeles counties.

#### SANTA BARBARA.

Wm Logan will begin sinking wells on the Los Flores property in the near future, and will also oversee the drilling work on the wells which are to be sunk in the neighborhood of Guadalupe, in which the Tognazzini Bros. and B. Pezoni, together with a number of other prominent citizens, are interested.

The Columbian Oil and Asphalt company are adding to their refinery apparatus at Carpinteria for working up their distillate into various products, and will produce machine oil, cylinder oil, petroleum jelly (vaseline), all valuable products which are in demand, and which find a ready market. In this way the residue distillate of their oil will bring a much more satisfactory price than has been heretofore obtained.

The Union Oil company has had surveyed a pipe-line route from the ocean inland through their holdings, over the best possible route to secure a gravity flow of the output of their extensive territory, and which line can be extended eastward along the entire length of what is known as the Lompoc anticline. Just as soon as sufficient proof of an oil field is secured to warrant the construction of this line it will go in, and work in drilling is being prosecuted with a view of proving the territory with all possible speed. The territory once proved and the line in, the Union company will doubtless buy all the oil other companies can bring to their system.—Lompoc Record.

#### SANTA CRUZ.

C. D. Wentworth, an experienced oil operator who has large interests in the San Joaquin valley, proposes to begin operations near Watsonville. He has made an exhaustive investigation of the local oil fields, including the Sargent and Gaffey tracts, and is favorably impressed with the local prospects. Mr. Wentworth has secured 1,248 acres in the foothills north of the Gaffey district, and including portions of the Rossi and Majors ranches, and will begin prospecting for oil at an early date. He has interested a number of outside capitalists in the project, and the Wentworth district will be thoroughly developed in a systematic manner. Mr. Wentworth is satisfied that there is oil in this section,

and if he does not strike the fluid it will not be for the lack of trying.

#### VENTURA.

The Webfoot Oil company, which is operating in the Cuyama district, just across the line from Kern in Ventura county, is sending out material to erect a new rig to take the place of the one destroyed by fire a short time ago. A number of wagon loads of material have already been dispatched from Bakersfield to the scene. The company is pushing work on its property, which is in the territory of the Midland Pacific.

#### WYOMING

The following telegram, received Wednesday from our Wyoming correspondent, is self-explanatory:

EVANSTON, Wyo., May 26, 1903

PACIFIC OIL REPORTER, 318 Pine street, San Francisco: The Atlantic and Pacific Oil company brought in what is considered the best well in Uinta county field to-day at a depth of 870 feet. The well is doing three barrels per hour, with indications that it may develop into a two or three hundred barrel well as soon as the sand is drilled into a few feet more. The conditions are excellent for shooting. This is the second well brought in in the past two weeks.

E. S. EASTMAN.

The company drilling on 10, 14 118 has made a very encouraging strike.

Well No. 2 of the Atlantic & Pacific is down over 400 feet. There is enough gas for drilling.

A machine shop is badly needed in Uinta field as all the work has to be sent to Salt Lake, 115 miles away.

The Globe Oil company received two carloads of machinery and are now busily engaged in hauling the same to the field.

The Fossil Oil company received a carload of casing last week. They are now erecting their derrick and expect to begin drilling about May 13th.

The Round Mountain company, a Sidney, Nebraska corporation, will be drilling by the Middle of June on 24, 17-118. The machinery is on the way.

The representative of the National Oil Well Supply company, Boulder, Colorado has been in the Uinta field, and this company will soon be represented here.

L. L. Bettys has just purchased a string of fine tools from the Oil Well Supply company at Spring Valley. This concern is running a day and a night shift and making rapid strides toward the oil-bearing strata.

State Mineralogist Wilbur C. Knight left last week for an extended tour of the oil and mineral regions of Wyoming. He was accompanied by Messrs. Noel Parsons, A. E. Sayons and J. H. Lobell, representatives of French capital.

W. Z. Warner, general manager of the Globe Oil company, left for his home in

Beatrice, Neb., Thursday of last week. Mr. Warner was very much impressed with the Fossil field, and says there is no doubt but that oil will be struck in large quantities this summer.

The Michigan-Wyoming people are now down 700 feet on their holdings north of town, and drilling daily. Indications are that oil exists in large quantities in the locality where they are boring, and there is no question but success will eventually crown their efforts.

The Idaho-Wyoming Oil company are making good progress and are now down something over 1,200 feet, with good indications of oil. They broke a Pitman bar, which caused a delay of a day or so, but are again working night and day, and are making very good progress.

The Jager Oil company is erecting another derrick on section 12, near the site where their famous well now stands. This company is composed of enterprising business men who are conducting matters on a large scale in the Uinta county oil fields and we predict for them a successful future.

C. A. Canfield, of Chanslor & Canfield, and a director in the American Consolidated was in the Uinta field last week, and expressed himself as greatly satisfied with the strike made by his company and with the general outlook of the field. He will have several more rigs at work in different portions of the field.

A book containing the mining laws of the state of Wyoming and the United States has just been issued by State Geologist H. C. Beeler. It shows an exhaustive research of all mining laws which may come into use in Wyoming and is most thoroughly indexed, so that subjects may be investigated with little trouble. It is brought down to date, having included the recent laws and amendments of both local and national legislation. The work is issued in small pamphlet form, and is intended for those interested in mining industries, to whom it will be sent on application without charge. Professor Beeler is deserving of great commendation from the mining interests of the state.

Arrangements are now about completed to begin prospecting for oil and coal in the Teton basin district. The machinery and piping arrived in St. Anthony some time ago and work will be commenced on the 15th of May. The president of the company, W. E. McDouald, arrived in the city Monday from Florence, Colo., and reports everything ready to begin operations. Says Mr. McDouald: "We are prepared to bore 1,800 feet, and further if necessary, and we don't propose to give up until we have struck oil and coal too. I am satisfied that the Teton basin contains oil and good coal, and if we fail to sell enough stock to complete the drilling I have plenty of Colorado backing, and will put the hole down myself."—Teton Peak.

## California Combined Oil Co.

Is just completing its first well  
in the Kern River Oil District

Has the derrick up for well No. 2, which well will be begun as soon as well No. 1 is completed and perforated.

Other wells will be drilled at once, until this company is in a position to sell oil in sufficient amounts to pay regular dividends.

The company is organized on a basis of 1,000,000 shares, par value \$1. The company has a large acreage, located in the different oil districts.

A limited amount of treasury stock is now offered for sale at the rate of 25 cents a share. The company has no indebtedness, and pays its bills as they are incurred. Only 10,000 shares will be sold, and this will be used only for actual development work.

The officers are: Pres., Z. N. Goldsby; vice-Pres., Prof. J. T. Wallace; Sec., J. H. Edson; Treas., Central Bank, Oak'd.

Office: 1069 Broadway, Oakland, Cal.



**FOR BURNING BRICKS.**

**Crude Oil is Now Used in a Hanford Brick Kiln.**

There are now employed at W. D. Trewwhitt's brick yard west of Hanford over a dozen men and the plant is being worked to its full capacity. A kiln of 400,000 brick is being burned and by the time they are ready for delivery a second batch will be sufficiently matured for burning.

The old-time custom of burning brick with wood fed fires has been abandoned at this yard, says the Journal, and the heat for the purpose is now produced by a system of oil-burners recently adopted by J. H. Johnson, foreman of the plant. The idea is original with him, and up to the present time has proven very successful.

The kiln is provided with fourteen furnace compartments in which wood fires were kept steadily burning for days, and the constant attention of several men was required to keep them going. Under the new system one man can easily take care of the kiln. Each of the fourteen furnaces have been provided with two oil burners—one at either end—and if properly adjusted, a steady, hot flame is obtained. Underground pipes have been laid on either side of the kiln, and from these the oil for fuel is forced into the burners by steam pressure generated in the boiler of a threshing

engine. It requires a pressure of forty pounds to do the work. The oil is kept in a big tank some distance from the site of operations, and the flow is regulated by means of valves in the pipes near the burners.

It was at first feared that much smoke and a disagreeable odor would be emitted from the vents in the kiln, but it was soon found that so long as the oil was permitted to flow in only such quantities as could be promptly consumed difficulties of that nature would not be encountered.

The new system is evidently a success.

**The Pacific Underwriting and Trust Company.**

Home office, Parrott Building, San Francisco, Cal.

If Capital is desired for the promotion of any legitimate proposition, Mining, Manufacturing, Irrigation, Mercantile, Patents or Railroads, we can assist you.

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Gold Bonds, interest from two to four per cent, for sale.

Address all communications to the Company at its Home Office.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**MORE OIL ENGINES.**

**They Will Soon Be in Use on the Coast Division,**

Oil is to be the fuel on the Coast Line. As rapidly as possible the Southern Pacific is preparing for the adoption of crude oil on all its locomotives on the Coast Division, which extends from Los Angeles to San Francisco.

The first change has just been made, and as a result oil burners are now in operation between this city and San Luis Obispo, and within a few days oil-fed steeds will be carrying all traffic on the "East End," or that section of the road between San Luis Obispo and Santa Barbara.

This important change necessitates a great deal of preparation, including the erection of tanks and the converting of coal burners. Oil tanks will be established at San Luis Obispo, Santa Barbara, Santa Cruz and San Francisco and possibly at other points. The average capacity of the tanks will be about 55,000 barrels each. There are 102 locomotives on the Coast Line, and when all are converted, between 60,000 and 70,000 barrels of oil will be consumed each month. Most of this oil will be obtained from the Kern River field, but Santa Barbara will contribute its share—Los Angeles Times.

Subscribe for the PACIFIC OIL REPORTER.

**The Rotary Drill.**

The first rotary drilling apparatus ever used in the Hoosier oil territory and the first one east of Texas, is now being tested by the Great Western Oil company in Blackford county, Indiana. It is used in the soft formations, and when rock is reached the regular drill is substituted. The manner of operating it is different from the stem and bit method. A ten or twelve inch pipe is started, and inside of this is a regular eight inch casing. A cap is attached with a piece of hose. Water is forced into the eight inch casing by a donkey pump and comes up between the two pipes, bringing with it the dirt. The rotary table to which the pipe is attached is kept constantly revolving by a chain gear connected with the engine, and the pipe sinks of its own weight as the dirt is washed out. It is claimed when a bowlder is reached the stream of water will wash out around it until the stone falls into the hole so made, leaving free passage for the pipe. It usually takes ten or twelve days to reach the limestone, a distance of about 450 feet, while with the rotary machine it is drilled in from two to three days. Where the rock is close to the surface there is little to be gained from the rotary method of drilling, but where there are several hundred feet of soft drilling a great saving of time is claimed.

**INVESTIGATION MEANS INVESTMENT**

By you in the

**Elk Horn Consolidated Oil Co.**

Owning 1,400 acres positively proven oil land in famous Kern County, Cal., situated in the McKittrick, Midway and Sunset Oil Districts. The location of present operations is in famous Section 2, Township 11, Range 24, Sunset District. Well No. 2 is surrounded by the following well-known corporations: Jewett, Blodgett and Beale; El Rey; Pittsburg; Emperor; Superior; Wichita; Barrett; Arcola; Occidental; Gold Dollar; Monarch; California Fortune; and Medina. An investment now at the ground-floor price of

**30 cents A SHARE**

WILL LARGELY INCREASE  
IN VALUE IN A VERY  
SHORT TIME.

**30 cents A SHARE**

We earnestly urge that you act at once in buying this stock. The price to-day is 30 cents a share (par value \$1.00) and will be advanced from time to time as development progresses. The stock we offer is full-paid and non-assessable TREASURY STOCK, and is sold for the purpose of rapidly advancing development. We have issued an accurate map prospectus and will be pleased to mail you a copy. A postal will bring it. Incorporated under Territory Laws of Arizona. Member California Petroleum Miners' Association and the Pacific Coast Petroleum Miners' Association.

When ordering stock, Make Drafts, Express and Postoffice Money Orders Payable to the Corporation and forward to the

**ELK HORN CONSOLIDATED OIL COMPANY****470-471-472 Parrott Building****SAN FRANCISCO, CAL.**



**COAL OIL FOR HOGS.**

**Crude Petroleum is Said to be a Specific for Hog Diseases.**

One of the principal sources of revenue among the farmers of this part of the San Joaquin valley is hogs. There is no place on earth where hog raising can become so profitable as here, if the animals can be ripened for the market with continual good health. As is well known, there are diseases among the swine herds occasionally, throughout the valley. There are farmers who have raised hogs on the same grounds and in the same yards for years. It is not unreasonable to suppose that under these conditions hogs will become diseased, and to prevent this is what the stock men should try to discover. The Hanford Sentinel says that N. W. Hammond recently found in an Indiana paper a remedy that is simple, and is declared to be one of the best. It is nothing more than crude petroleum. Take the oil and spill some of it in the wallowing places where the hogs roll. Put a small quantity in the feeding trough. Soak a few sacks and wind them around the posts in the corral where the hogs rub and scratch themselves. Let the animals have a chance to oil their "hair" and drink and scent themselves up with the petroleum, and it is said that all diseases peculiar to the swine will chase across the

plain and leave the hogs in good shape. It is a cheap remedy, easily applied, and we advise our readers to try it. Try it in moderation, and don't go the "whole hog," now, like Californians generally do. Use a little discretion and see if this hint will not do you good.

**Foreign Capital.**

The International Petroleum company, Limited, has been organized in London, with important New York and Paris connections. Lord Dunmore is the chairman and Messrs. Humphrey (an American) and Ashby (an Englishman) are the promoters. This information is taken from official documents. The facts are interesting, because they cover the leading conditions under which certain well-known Texas properties have been acquired by this London combination, and the flotation will undoubtedly turn out to be the most sensational and ambitious of its kind ever ventured upon on that side of the Atlantic. The company has been formed with a share capital of \$10,000,000 (£2,000,000 sterling). The properties to be acquired represent some of the largest and most productive oil holdings in Texas and Indiana.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**Oil Burning Locomotives.**

In 1887 the Pennsylvania railroad, in its efforts to improve its practice in the direction of fuel economy and to decrease the burden that the heavy annual payments for coal place in the way of cheap transportation, made a careful series of tests on oil burning. Oil had, even at that time, been extensively used in Russia for locomotive fuel, and the officials of the Pennsylvania railroad were able to profit by the experience of the Russian engineers, so that they had little difficulty in getting satisfactory results from the oil, so far as combustion was concerned. In fact, the official report of the tests show that the oil burning was an ideal method of firing, easily regulated and always under perfect control. It gave absolute freedom from smoke and cinder, and, at the price of oil which then prevailed, it was thought that there would be, on some parts of the system, a slight economy as well, when all things—especially the handling of coal and ashes and the cleaning and repairing of the locomotives—were taken into account.

But the road on all its branches was then using about 8,000 tons of coal per day, or an equivalent of 32,000 barrels of oil per day. It was estimated that if any considerable portion of this amount of oil were to be used it would so enhance its price, in accordance with

the laws of supply and demand, as to make any advantage of the oil burning disappear. The idea was therefore, for the time, abandoned. Some five or six years later the Chicago, Burlington & Quincy railroad made a similar series of investigations, but at that time the relative price of oil and steam coal was such that those in charge decided that a change was not desirable. They came to the conclusion, too, that if they were to use oil as locomotive fuel over the whole system they would need about all the oil that was being produced at that time—Engineering Magazine for May.

**The Standard Refinery.**

The Point Richmond Record says that the Standard Oil refinery is rapidly increasing its force and is beginning many improvements with a view of doubling the capacity of the plant. On Monday last twenty-seven men were added to the construction department and to-morrow another big crew will be put to work.

These men are all laborers and will make ready the ground for the construction of additional stills and storage tanks. It is understood many more boilermakers and carpenters are soon to be employed.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

# 50 cents Asphaltum Refinery 50 cents

**A Very Rare Chance to Buy at a Low Figure Gilt-Edged Stock**

Modern Refining Works with Four Fine Steel Stills of 500

Tons per Month Capacity are Completed and Running.

## Refining Works near Sargent, Santa Clara Co., Cal.

We leased land in McKittrick, half a mile from the station, and have large producing wells within 50 to 500 yards on all sides.

We own 80 acres in Coalinga, near famous 1000-barrel Home Oil gusher, and 160 acres adjoining Calistoga oil well in Napa County.

Derrick and onthouses erected. As soon as price of oil warrants, two wells will be pushed to a finish. We have leased on very low royalty, from the City Street Improvement Company,

**6000 ACRES 6000 ACRES**

of land that produces untold quantities of high grade asphalt near Sargents Station.

We have concluded contracts for the sale of our Refined Asphalt at a figure which will enable us to pay dividends very shortly.

We are ready to contract in carload lots crude or refined asphaltum.

All the houses are erected, Refining Works and a Fine Laboratory **NOW COMPLETED.**

No empty promises, but absolute facts.

Ordinary business sagacity tells you that dividends in this large enterprise must be earned within a short time.

Asphaltum is a staple article. Ours at \$14.60 per ton (present price) is greatly superior to the famous Trinidad at \$40 per ton f. o. b. here.

# Standard Rock Oil Co.

Capitalization 500,000 Shares at \$1 par Value.

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Proven oil lands in Napa and Coalinga for sale cheap.

**AGENTS WANTED in All Large Cities for the Sale of Our All Refined Asphaltum**



### New Incorporations.

The following articles of incorporation have been filed in the office of the Secretary of State:

Frazer Oil company of California. Principal place of business, Phoenix, Arizona. Capital stock, \$1,500,000. Alexander Dallas, president; Roderick W. Dallas, vice-president; Everett, A. Graves, secretary; M. Frazer of Connecticut, directors.

Luckenbach Oil Atomizer company. Principal place of business, San Francisco. Capital stock \$100,000; subscribed, \$50. Directors: James H. Maher of Seattle, Wash.; Harry Luckenbach, J. M. Smith, Charles M. Scott, Francis M. Wright of San Francisco.

The Bothwell oil field of Canada produced for shipment during April, thirty-four cars of crude oil, or 5,100 barrels. This oil sold for \$1.96 per barrel at the receiving station there, or in all \$9,996.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, May 27th:

ASSOCIATED.			
5,000 at	25 (S 30)		\$ 1,250 00
CARIBOU.			
475 at	85		403 75
HANFORD.			
1 at	118 00		118 00
HOME OIL.			
100 at	2 60		260 00
IMPERIAL.			
50 at	19 00		950 00
INDEPENDENCE.			
2,500 at	17		425 00
8,000 at	18		1,440 00
1,000 at	18 (B 10)		18 00
3,000 at	19 (B 90)		570 00
JUNCTION.			
1,500 at	10		150 00
6,650 at	23		1,330 00
KERN.			
500 at	5 00		2,500 00
150 at	5 25		787 50
100 at	5 37 1/2		537 50
LION.			
2,000 at	06		120 00
1,200 at	07		84 00
MONARCH.			
1,700 at	57		969 00
1,000 at	58		580 00
2,650 at	59		1,563 50
2,000 at	60		1,200 00
MONTE CRISTO.			
1,200 at	1 10		1,320 00
OCCIDENTAL OIL.			
1,000 at	20		200 00
4,150 at	21		871 50
500 at	22 (B 40)		110 00
OIL CITY PETROLEUM.			
1,550 at	35		542 50
PEERLESS.			
20 at	15 00		300 00
PITTSBURG OIL.			
100 at	45		45 00
REED CRUDE.			
1,000 at	36		360 00
1,000 at	37		370 00
1,000 at	38		380 00
14,500 at	40		5,800 00
SAN JOAQUIN.			
25 at	6 25		156 25
SOVEREIGN.			
12,800 at	41		5,248 00
1,600 at	42		672 00
STERLING.			
100 at	3 15		315 00
THIRTY-THREE.			
10 at	8 00		80 00
10 at	8 50		85 00
80,141 Shares,	Amount,	\$32,273.50	
FISHER R. THEATRE CO.			
500 at	3 00		1,500 00
500 Shares	Amount	\$1,500	

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma		1.40
Apollo	.38	.40
Asso. Oil Co Stk. Tr.		
Certificates	.24	
Aztec	.70	.75
Bear Flag	.06	
California Standard	.13	.15
Caribou	.82 1/2	
Central Point Con.	.75	.80
Chicago Crude	.18	.21
Clairemont	.29	
Esperanza	.70	
Fanna		.04
Four		.72
Fulton	2.50	2.65
Giant		.25
Hanford		122.00
Home	2.50	2.65
Homestake		5.00
Imperial	18.00	19.00
Independence	.16	.17
Junction	.20	.25
Kern	5.12 1/2	5.50
Kern River	14.00	15.00
Lion	.06	.07
Monarch of Arizona	.59	.62
Maricopa	.10	
Monte Cristo	1.05	1.10
Nevada		.50
Occidental of West Va.	.22	
Oil City Petroleum	.33	.35
Peerless		15.50
Petroleum Center		.05
Pittsburg	.45	.46
Reed Crude	.38	.40
S. F. & McKittrick	2.25	2.75
San Joaquin O. & D.	6.25	6.50
Senator	.65	.70
Shamrock	.24	
Sovereign	.41	.42
Sterling	3.15	3.20
Superior	.04	
Thirty-three	.08	8 25
Toltec	.16	.20
Twenty-eight	3.80	
Union		64.00
United Petroleum		118.00
West Shore		3.50
Western Petroleum		
Wolverine		.57

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THE AMERICAN WELL WORKS  
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### DIVIDEND NOTICE.

PEERLESS OIL COMPANY—ON APRIL 27, 1903, declared a dividend, No. 14, of fourteen (14) cents per share, payable June 1, 1903. Books close May 26, 1903.  
GURDON BRADLEY, Assistant Secretary.

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" Merced	1:20 p	1:40 p		1:28 p
" Fresno	3:20 p	3:00 p		3:15 a
" Hanford	5:00 p	3:51 p		7:50 a
" Visalia	4:48 p			5:00 a
" B'field	7:10 p	5:50 p		7:35 a
" Kan. C.		2:31 p		8:02 a
" Chicago		2:15 p		8:47 p

a for morning; p for afternoon.

8: a. m. Daily is Bakersfield Local, stopping at all points in San Joaquin valley. Corresponding train arrives at 7:50 a. m. daily.

9:30 a. m. Daily is the "CALIFORNIA LIMITED," carrying Palace Sleeping Cars and Dining Cars through to Chicago. Chair Car runs to Bakersfield for accommodation of local first-class passengers. No second-class tickets are honored on this train. Corresponding train arrives at 11:10 p. m. daily.

4:20 p. m. is Stockton local. Corresponding train arrives at 11:10 a. m. daily.

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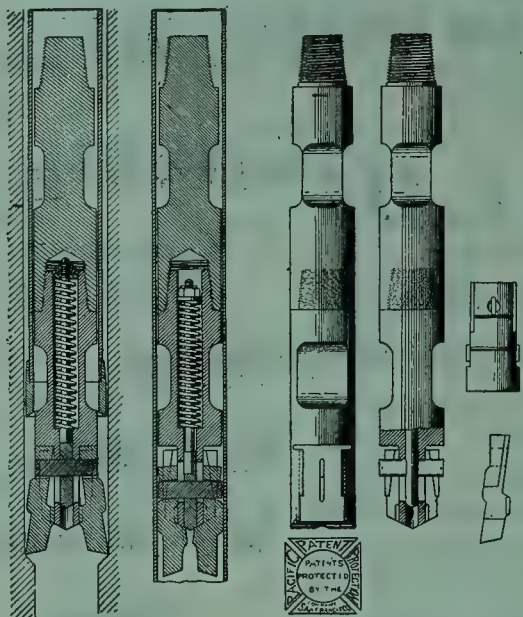
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## MAPS OF THE OIL FIELDS

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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields, as they exist to-day.

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Vol. 4. No. 31.

SAN FRANCISCO, CAL., SATURDAY, JUNE 6, 1903.

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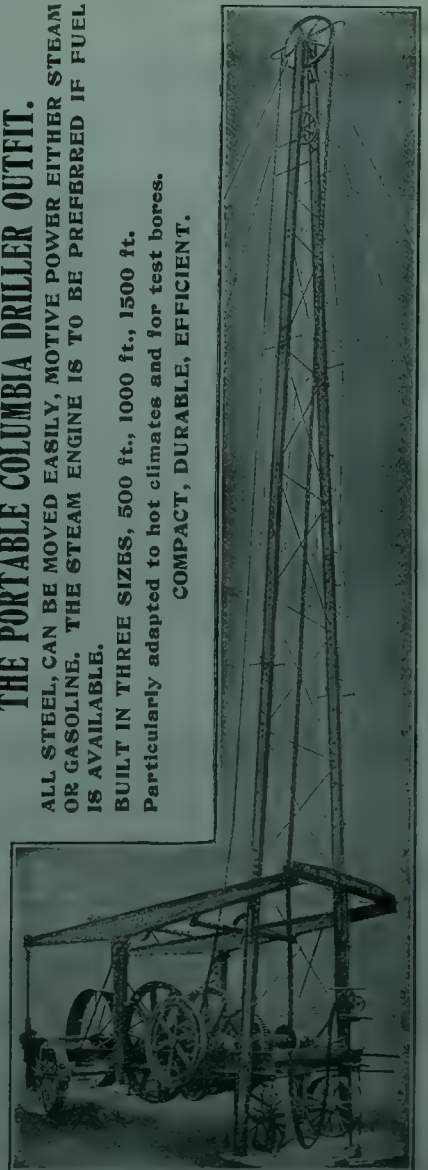
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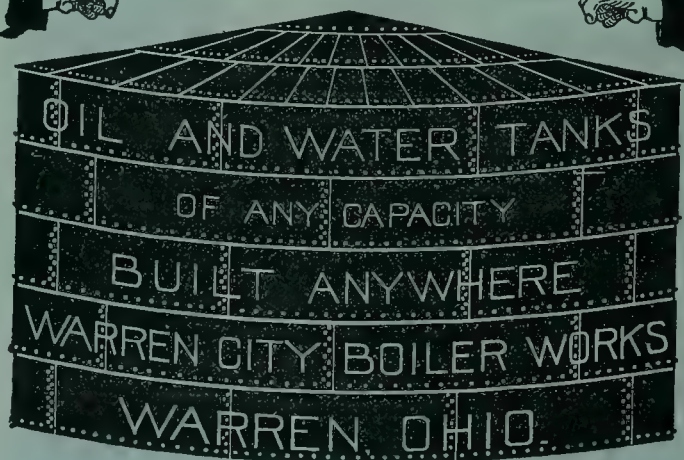
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# PACIFIC OIL REPORTER

VOL. 4, NO. 31

SAN FRANCISCO, CAL., SATURDAY, JUNE 6, 1903.

PRICE, TEN CENTS

## THE OIL FIELDS OF WYOMING.

### A New District That Is Now Considered Choice Oil Territory.

Productive Wells Already Developed That Yield the  
Most Profitable Oil Yet Discovered, and New  
Wells Are Being Rapidly Drilled.

BY OUR SPECIAL CORRESPONDENT.

Uinta county is situated in the extreme western part of Wyoming, and the Uinta county oil field

to the "Narrows," and thence directly west over the line into Utah.

Bear river country on the west from the Green river on the east.

#### BEAR RIVER BASIN.

The Bear river basin is a true one in structure and appearance, the rim being formed by an encircling series of anticlines, encircling a syncline basin near the center and the anticlines culminating in an anticlinal dome near the middle of the east end into a lofty round mountain known as "Medicine Butte." These anticlinal domes in Wyoming are found to be the principal seats of oil and gas, forced into them by water pressure from the surrounding strata.

From the top of the Butte one

#### ROUND MOUNTAIN DISTRICT.

Twenty miles north of Evanston lies the Round Mountain country. Round mountain is a lofty, dome-shaped hill rising above a series of anticlinal hills or "hog backs" and synclinal folds. The dome itself seems to be formed by a folded mass of cretaceous shale capped with sandstone dipping off from it in the opposite direction, while the strata all around seem highly disturbed and dip at various angles.

#### FOSSIL OIL FIELD.

To the northeast of Round mountain lies the Fossil oil field. The Oregon Short Line railway passes through this field, which is



Old Carter Oil Well, 1866. Uinta County's First Well.

may be described as the south quarter of the county, extending to the Utah line on the south and west. The Bear river and its tributaries, which rise in the mountains on the south, follows an irregular northwest course, passes through Lome, the west side of the Hilliard flats, crosses the Union Pacific railroad below Millis and through a narrow valley to Evanston, thence northwest

To the east and northeast of Evanston the country is broken and rises irregularly in a series of anticlines with an endless roll of small canyons and accompanying precipitous hills, all leading to the western apex of an anticlinal fold. To the north is the basin of Bear river, the country around developing into a rugged plateau. The section from Hilliard to Bridger is an uprise that divides the

has a fair view of the surrounding country. To the south the forms of the rugged Uinta mountains can be seen, and to the north and west the snowy outlines of the Wasatch range are plainly visible. The country below appears to be a series of rolling hills, marking those anticlinal and synclinal folds into which, like a troubled sea, the surface of Uinta county is so generally thrown.

surrounded by immense coal beds. The coal mines of Kemmerer, Diamondville and Rock Springs supply nearly all the coal used in the western states. To the northeast of Fossil lies the Lander oil fields, which were developed some years ago, and which have at the present writing several gushers.

#### SPRING VALLEY FIELD.

South of Fossil lies the Spring Valley oil field, which has been



the scene of an extended oil excitement for the past two years. No less than twenty-five rigs have been at work and several wells have been brought in which are said to be better than twenty barrel wells. The oil is of a superior paraffine variety and of exceptional purity. The formations of

secured control of this well, marketing the product by hauling it in barrels to Evanston and selling it to the Union Pacific Railway company and to a coal company operating near there. He usually delivered his weekly output on Saturday, which amounted to from 10 to 15 barrels, for which he re-

ceiving of oil from a slight depression in the ground.

#### THE UNION PACIFIC WELL.

In September, 1900, the Union Pacific Railway company, desiring a water supply for locomotives near Spring Valley, sent a contractor to drill a well on section 27, 15-116. The following Decem-

a large area of land included in the old congressional land grant which gave them every alternate odd-numbered section for twenty miles on either side of the track.

This is made possible by two clauses in the federal land laws; one of them designates oil as a mineral and has been sustained by numerous rulings of the Interior Department. The other exempts mineral rights from the ownership of lands held for grazing and agricultural purposes unless they are fully patented, and allows anyone who discovers minerals of any kind on such land to file an entry and obtain title. The unpatented land held by the railroad company, including this particular section where their contractor had discovered oil, is designated as grazing and agricultural land and could not be held by them unless fully patented. If other parties should file on them under the mineral laws.

#### THE AMERICAN CONSOLIDATED.

As a matter of fact the news of their discovery leaked out and the American Consolidated Oil company, a California corporation, filed on the section of land where the discovery had been made, and in the next six months all the desirable land in over seventy townships had been filed upon and the country was in a fever of excitement.

The American Consolidated company tried to take possession of section 27 but were driven away and the railroad company put armed guards at their well with instructions to shoot anyone



Government Test of the Union Pacific Oil Well, June 27, 1902.

the Uinta field are for the most part of the cretaceous period, covered in many places with deep beds of the tertiary formations.

#### SIX OIL DISTRICTS.

As a matter of convenience, the Uinta county oil fields are divided into six districts, viz.: Spring Valley, Fossil, Medicine Butte, Hillard, Round Mountain and Cumberland. The boundaries of these districts are simply imaginary, for as far as known one part of the Uinta oil field is just as promising as another; nothing but the drill will determine the most promising parts for oil.

#### FIRST MENTION.

The first account of the Uinta county oil field is found in "Stanbury's Expedition to Great Salt Lake," which was made in the years 1849-50, but which did not appear in print until 1852. Stanbury speaks of the oil fields in the following terms:

"From the base of a bluff issued several sulphur springs, and south almost a mile and a half a spring of petroleum, or mineral tar, oozes from the low bank of a little rivulet, flowing into the valley of Sulphur creek. The emigrants collected it for medicinal purposes and for greasing wagon wheels. The bank from which it issues is full of rolled pebbles, but no ledge is visible."

#### THE CARTER OIL SPRING.

The history of the oil field, however, may be said to have commenced with the Carter oil spring, discovered in the year 1866 by Judge Carter, then a post trader at old Fort Bridger. A Mr. Fiero

received never less than \$20 per barrel, and sometimes as high as \$25 and \$30. Mr. Fiero continued this enterprise for about eight years, accumulating a small fortune. Mr. Fiero still lives in Evanston. A little later on a modern drilling rig was placed near the oil spring and a shaft

the drill passed through an oil sand at a depth of 350 feet. An eight foot stratum of oil sand was passed through at 650 feet, and at 1,158 feet the drill passed through 22 feet of oil sand, bringing in a 50 barrel well. Railroad officials who were watching the situation closely ordered the well



Well No. 1 of the American Consolidated Oil Company, on 14, 15-118, Uinta County, Wyoming.

sunk 300 feet. The tools were lost at this depth and a long "fishing" job ensued, and after expending a large amount of money the parties who were pushing the enterprise gave up in despair. The derrick was removed, the buildings destroyed, and to-day there is nothing to mark the spot but a steady

capped and made every effort to keep the strike a secret.

#### ATTEMPT AT SECRECY.

The reason for this is simple enough. If the discovery became known there would be a mad rush of prospectors and adventurers and the railroad company would be in a fair way of losing title to

who attempted to meddle with it.

#### ANOTHER OIL DISCOVERY.

About this time, while constructing the Aspen tunnel, the workmen encountered oil and gas in several places. On one occasion the gas became ignited and an explosion followed which caused the death of a number of



the men and badly caved in the tunnel and the oil ran away in trenches constructed for that purpose. This difficulty was finally overcome by laying thick beds of concrete which checked the flow. The news of this strike created greater excitement and the American Consolidated company laid plans to take a drilling outfit on section 27. The railroad company learned their intentions and a trench was dug in the roadway leading to this section and six twenty-five pound charges of dynamite placed therein, and the oil company notified that any attempt to take drilling machinery onto the land would result in their

perts and citizens. The well was uncapped and the oil bailed out and conducted to a tank car through a pipe-line laid for the occasion. A 100-barrel tank car was filled in eight hours. Mr. Zevely, stayed in the oil field over a month and his report was a voluminous one, consisting of over 1,700 typewritten pages. It was partially due to this report and partially the influence of prominent men interested that the great government mineral reserve was created. This reserve includes over 1,500 square miles of land which is withheld from entry except under the mineral laws, petroleum being a mineral. No

and 125 barrels were bailed out the first day. It is considered a fifty-barrel well, but may prove to do much better than that. OIL PRODUCTS OBTAINED. The principal products obtained by the distillation of crude petroleum are kerosene, benzine, gasoline, naphtha, heavy or lubricating oils, residuum, and according as the crude oil has a paraffine or asphaltic base, paraffine or asphalt. The qualities of crude petroleum and the qualities or specific gravity of the refined oils distilled from it are almost infinite in their variety. ANALYSIS OF THE OIL. Various tests of the Spring Val-

9.66 gallons @ 13 cents.....	1.25
42.50 pounds @ 6 cents.....	2.55
	\$6.54

The above estimate is made on the basis of forty-two gallons of crude and fifty gallons of refined oil per barrel. The prices are those obtained from New York wholesale prices obtained some time ago. The recent rise in the oil market make the estimates somewhat low at the present time but it is sufficient to illustrate the high commercial value of Wyoming oil, as it will be seen that it is rich in all that constitutes the highest grades.

FREIGHT RATES.  
A freight rate can be obtained



The Carter Oil Spring, Uinta Oil Field, Wyoming.

being blown up. Sheriff Frank James of Evanston was notified and and next day he caused the dynamite to be exploded. While this warfare was going on at Spring Valley, lawyers were fighting the case before the Interior Department and in the courts. The litigation finally reached such serious proportions that the Interior Department sent a special agent, Mr. J. W. Zevely, to make a test of the U. P. well and submit his report. ACTION OF THE GOVERNMENT. Mr. Zevely reached Evanston June 26, 1902, and next day went to Spring Valley accompanied by a large crowd of lawyers, oil ex-

patents, will be issued on land included within this reserve, whether state, government or grant land, except under the mineral laws, thus effectually shutting the railroad company out of the Uinta field excepting on such land as they have already secured patents. TWO WELLS IN 1902. Two wells were brought in near Spring Valley during the season of 1902, viz; that of the Jager Oil company and the Atlantic and Pacific Oil company. The Jager strike was made early in August, and started off at thirty barrels. The "Ellis" well was brought in about the Middle of September

ley oil by analytical chemists of undoubted reputation give the same general results, all showing it from 42° to 44° Baume. From one of these made by Messrs. Thomas Price & Son, San Francisco, I have estimated the commercial value of a barrel of crude oil as follows:

Naphtha (Gasoline and Benzine).....	28 per cent
Kerosene.....	24 per cent
Signal and Headlight.....	8 per cent
Lubricating reduced stock.....	23 per cent
Paraffine.....	17 per cent
	100 per cent

11.76 gallons @ 12 cents.....	\$1.41
10.08 gallons @ 10 cents.....	1.00
3.36 gallons @ 10 cents.....	.33

from the Uinta fields to San Francisco that will not exceed \$1.50 per barrel. Assuming that the cost of refining is 25 cents per barrel it will be seen that the net profit on a barrel of oil is approximately \$4.79 per barrel. The Union Oil company and the Standard Oil company both have extensive refining plants in San Francisco and both are eagerly reaching out to the Orient where the trade in illuminating oil is steadily increasing with an immense field ahead and which is at present largely supplied by the Standard Oil company, who are shipping oil in cargo lots from the eastern seaboard. The question





Beckwith Bank Building, Headquarters Evanston Oil Exchange, and Group of Members.

seems to be one of quality and I earnestly believe that the Uinta county wells need not be heavy producers to enable them to be operated on a paying scale.

The following analysis was made by Louis Falkenau, a widely known chemist of San Francisco, from oil taken from the 650-foot sand of the U. P. well at Spring Valley.

Specific gravity of crude oil when temperature is 66° Fahrenheit or 19° centigrade (ordinary temperature) is .825.

It also flashes at the same temperature.

DISTILLATION.									
By Heating and Changing Temperature		The Percentage Distilled off		Specific Gravity	Hydrometer Gravity	Nature Product			
		By Vol.	By Weight						
From	To								
66° F. Deg.	302° F. Deg.	15	pr cent 17.1	0.740	60	Gasoline and Benz.			
	302° F. Deg.	33.1	pr cent 33.4	0.802	46	Light Oil or Sls.			
	491° F. Deg.	26.5	pr cent 27.1	0.830	35	Heavy Oil or Sls.			
	602° F. Deg.	19.5	pr cent 20.4	0.840	31	Paraffine			
Residue	Bituminous	Soluble	1						
Residue	Carbon and Ash	Insoluble	1						

14.1 (approximately) of the 20.4 per cent is paraffine. Traces of sulphur were found, less than one-tenth of 1 per cent. The oil dis-

tills without foaming or "kicking."

With the discovery of oil of such high grade at Spring Valley, oil men were not long in making preparations to test the territory adjacent to the discovery. At this writing no less than thirty-five drilling rigs have been erected, distributed in the Fossil, Hilliard, Medicine Butte, Round Mountain, Spring Valley and Cumberland districts, and new rigs are arriving almost daily.

OIL WELL SUPPLIES.

The Western Well Supply company, a branch of the Oil Well Supply company, have established a warehouse at Spring Valley station with the intention of carrying a complete stock of well supplies. At the present writing Crane and company are attempting to secure a site from the railway company for a warehouse and repair shop, while the Union Oil Tool company, National Supply company and Kelley & Taneyhill have each got a foothold in this new but important field.

TRANSPORTATION.

The transportation facilities throughout the oil field are unexcelled, the Union Pacific traversing from east to west through the southern part and the Oregon Short Line following an irregular course further north. A charter has just been secured for a branch railway extending from Bridger north to Cumberland thence southwest to Altamont, thus traversing through the heart of the oil field, thus bringing the most important parts of the field within a few miles

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of railway lines. Work on the new railway will commence at once. The physical characteristics of the entire field make it particularly accessible for pipe-line transportation. Extensive lumber yards have been established at Evanston and Kemmerer that carry a full stock of such timber as is used in the construction of derricks, etc.

PRESENT DEVELOPMENTS.

In traversing the Spring Valley district a few days since I found the existing conditions most flattering. The little town was commencing to show its increased prosperity in many ways.

The Jager Oil company were putting in another rig and the Atlantic and Pacific Oil company several of them. They were drill-

by July 1st. It cannot be said that the discovery of oil in Uinta county is a recent occurrence or that its past history has been very brilliant but it may be said with all possible emphasis that the present condition is a new one and is here to stay with every indication that oil mining will take a prominent part in the future history of the state.

LIST OF COMPANIES.

The following is a list of the companies incorporated to operate in the Uinta oil fields:

- Atlantic and Pacific Oil company.
- American Consolidated Oil company.
- Aspen Oil company.
- Altamont Oil company.

- Intermountain Oil company.
- Jager Oil company.
- Kemmerer Oil and Development company.
- Knickerbocker Oil company.
- Last Chance Oil company.
- Mammoth Oil company.
- Medicine Butte Consolidated Oil and Gas company.
- Model Oil company.
- Mercantile Oil company.
- Michigan-Wyoming Oil company.
- Ohio-Wyoming Oil company.
- Omaha-Wyoming Oil company.
- Piedmont Oil company.
- Pacific Oil company.
- Rocky Mountain Oil company.
- Spring Valley Oil company.
- San Francisco Oil company.
- Standard Reserve Oil company.

work, while others are simply making preparations for drilling. All seem intent on developing their property as far as the sale of stock will permit, and I am led to believe there is not a fake company operating in the field. Especial mention may be made of a few of the companies more actively engaged in development work.

ATLANTIC AND PACIFIC.

The Atlantic and Pacific Oil company, a San Francisco firm, entered the field about a year ago and at once commenced to sink a well. The following September they brought in what is now considered the best well in the field. It is considered a 50 barrel well, some conservative people placing it at from 100 to 200. The company themselves place it at 50 barrels, and we will take their figure, although we know that 122 barrels were pumped out in one day. The well will flow about forty barrels at a time without pumping and furnishes sufficient gas to pump at all times. Officials of the company recently stated they would commence shipping oil in the near future as soon as a pipe-line can be constructed to Spring Valley. There is some talk of a refinery at Evanston, a site already having been selected.

AMERICAN CONSOLIDATED.

The American Consolidated Oil company have been in the Uinta field for a year and a half and have expended a large amount of money in development work. They are at present putting down several wells in the Spring Valley district and a few days ago made a good showing in one of them.



American Consolidated Oil Company's Well No. 2, on 14, 15-118, in which oil was struck on May 12th at a depth of 700 feet.

ing on 10, 14-118 and also on 22, 15-118 about 500 feet from their producing well. They had another rig about completed 500 feet west of this and will put in an indefinite number of other rigs at once. About twenty cars of drilling machinery were standing in the railway yards.

At the Ellis well two 250-barrel tanks had been added to their tankage facilities and oil was being pumped into them. And such oil. It was the color of sherry wine, transparent and having the smell of benzine. I learn that it shows a gravity of 45 to 46 Baume. Many new rigs were being put in by various companies and I predict that fifty rigs will be at work

- Acme Oil company.
- Bear River Oil company.
- Belt Line Oil company.
- Bettys Oil company.
- Bonanza Oil company.
- Custer Crude Oil company.
- Columbia Oil company.
- Diamond Oil and Development company.
- Enterprise Oil company.
- Eclipse Oil company.
- Eureka Oil company.
- Fossil Oil company.
- Fossil Consolidated Oil company.
- Great Western Oil company.
- Hawthorne Oil and Development company.
- Idaho-Wyoming Oil company.
- Interocean Oil company.

- Uinta Petroleum company.
- Uinta Central Oil and Development company.
- Union Pacific Oil company.
- Utah-Wyoming Oil company.
- Wyoming Illuminating Oil company.
- Wahsatch Oil company.
- Wyoming Fossil Basin and Idaho Oil company.
- Wyoming Paraffine Oil company.
- Wyoming Hydro-Carbon company.
- Wyoming-Utah Paraffine and Petroleum company.
- Western Mining and Development company.
- Some of the above companies have from three to five rigs at

## Oil and Alfalfa Lands

3,100 acres, 2,780 deeded, 1,800 below water ditches, 1,000 acres of which is suitable alfalfa land. One of the best ranches on Bear river, near the Spring Valley oil wells and coal mines. You can double your money on this proposition with the alfalfa land alone. OIL MAY MAKE IT WORTH MILLIONS.

Write at once.

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**KNIGHT, WYOMING**

**LARGEST**

**OIL WELL**

**SUPPLIES**

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UP**

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The next few months may bring them several wells as their property is considered proven oil land. [Since the above was written this company has struck oil in paying quantities, and has practically proved up an immense stretch of territory.—Editor PACIFIC OIL REPORTER.]

#### MICHIGAN-WYOMING.

The Michigan-Wyoming Oil company organized at Grand Rapids, Mich., are putting down one well in the Medicine Butte district and we understand a large amount of work has been laid out for the coming season. Mr. A. A. Perkins, a man of many years experience in Pennsylvania, Texas, California and South American oil fields, is acting as superintendent of the company. Their well is now down about 600 feet with excellent indications of getting oil within the next few hundred feet.

#### FOSSIL CONSOLIDATED.

The Fossil Consolidated Oil company, a Pittsburg firm, are putting down two wells in the Fossil district under the management of Mr. G. W. Short. They intend to put in several rigs this spring.

#### STANDARD RESERVE.

Another company that will take a most prominent part in Wyoming oil development is the Standard Reserve Oil company, headquarters in Chicago. Sites have been selected for two wells and drilling machinery is already

on the way to the field. The company own land bordering that of the Jager and the Atlantic & Pacific company, and within 500 feet of the "Ellis" well on 22, 14-118. In other words it is proven

make them one of the most extensive operators in the oil field.

#### FOSSIL BASIN.

At the present writing there is a great deal of excitement in the Fossil district. The Fossil Basin

on farm machinery and vehicles as lubricating oil. The natives talked of the oil as one of the "queer things" but never in a commercial way. They were the path-finders of the nation, but



Landscape View of the Atlantic and Pacific Holdings on 22, 15-118, showing wells Nos. 1, 2, 3 and camp.

property and as we understand it they will drill with a practical certainty of getting oil. The company inform me they have made preparations to place fifteen rigs at work this season, which will

is settled with stockmen and is used for the most part as a range for cattle and sheep. For more than twenty years oil from the various oil springs in the district has been skimmed off and used

were not the men to grasp an opportunity. Nature supplied them with an abundance of oil for purposes and they were satisfied with that. The oil springs occur on all sides of the basin, over forty of

#### MICHIGAN-WYOMING OIL CO. 67 Lyon Street

GRAND RAPIDS, Mich., Feb. 9, 1903.  
G. S. ELLINGER, Esq., Chicago, Ill.—Dear Sir: I am pleased to inform you that the land you sold to the syndicate which organized the Michigan-Wyoming Oil company has proved to be as good and better than you represented. Shortly after our company was organized, and I was elected manager, I visited our property, and was surprised and gratified at what I saw. Some time later I again went over the property in company with Prof. Daniels, one of the leading oil experts of the United States. The professor spent some time looking over the land, and pronounced it as of the best oil land he had ever examined. He located six places on the property at which to drill wells, on one of which we are now drilling, and he expressed his firm belief that we will strike a flow of rich oil in every well drilled. Our stock is now selling many times higher than the price at which the members of the original syndicate purchased, and we are all highly pleased with our investment and prospects.  
[Signed.] J. W. RIECKE, M. D., Manager.

# MAKE NO MISTAKE

#### OFFICE OF JUDGE OF THE SUPERIOR COURT of Grand Rapids RICHARD L. NEWMHAM, Judge

GRAND RAPIDS, Mich., March 30, 1903.  
To WHOM IT MAY CONCERN: Mr. G. S. Ellinger came to Grand Rapids several months ago and formed a syndicate among our business men here, who purchased a tract of oil land in Uinta county, Wyoming, and organized the Michigan-Wyoming Oil company thereon. The land thus secured through Mr. Ellinger has since been examined by the general manager of the company and by expert oil men, and is by them endorsed as being an excellent piece of oil land. All the representations made by Mr. Ellinger regarding the land have proven to have been most conservative. The company is now drilling on the property and stock is now quoted at a much higher price than it was when first started. I have known Mr. Ellinger for twenty years, and know him to be thoroughly honest and reliable, and any statements which he makes are entitled to full credit.  
[Signed.] RICHARD L. NEWMHAM.

## I Deal in Oil Lands. That Is My Business. I Give It My Undivided Attention.

I believe the Uinta county, Wyoming, oil fields are the richest oil fields in the world. That is why I am not simply offering a few pieces of land as a "side issue". I study the field and pick only such tracts of oil land as will give satisfaction to the purchaser.

I am NOT limited to any particular piece or section. I have the entire Uinta Oil Field to pick from.

I have personally and thoroughly examined the Uinta Oil Field and its formations, and I know which are the desirable oil tracts. I control some of the choicest oil lands in all parts of this rich oil field, and I am selling them in parcels to suit.

I have carefully selected such land as I handle for its meritorious showing, and I handle each tract on its individual merit.

I control very choice land adjacent to the property of the Michigan-Wyoming Oil Co.; also adjacent to the property of the Knickerbocker Oil Co. To both of these companies I sold the land they now own.

I have no "SNAPS" or "CHEAP" land for sale. Cheap "oil land" is expensive at any price.

I originated the plan of forming syndicates in this oil field. There are successful and unsuccessful syndicates. I form the successful kind. I have imitators who use good literature by copying mine, but with such filching their wisdom and ability ends.

If you undertake a syndicate you want to know that you are getting a good prospect and that the organization will prove a "going concern"; and to secure these results you want one to guide who "knows how".

I have organized a number of syndicates and companies in this rich oil field, and all on a successful and prosperous basis.

If you are thinking of interesting yourself, in any manner, in the rich oil fields of Uinta county, Wyoming, communicate with me before investing, and you will

## MAKE NO MISTAKE

# ..... G. S. ELLINGER .....

161-163 RANDOLPH STREET, CHICAGO



them in all. Out of these springs come water in abundance and with it oil in some quantities. It is claimed several barrels a week have been taken from some of them. By sticking a pole into

from a few inches to several feet in height.

## FOSSIL OIL DISTRICT.

Accepting a pressing invitation to visit the Fossil oil fields I reached Kemmerer, Wyo., a few

## KEMMERER.

Kemmerer is located in the heart of this important oil district, and is the natural base of supplies for operations carried on there. Prolific in its natural resources it

machine shop, round house and district offices are located here. Kemmerer boasts of a first-class hotel, national bank, opera house, churches, a number of mercantile houses and numerous comfortable residences. A triangular park adorns the center of the town. Everything has the appearance of permanency and the little village, which was apparently built by citizens who were evidently content to cast their fortunes together here, has the foundation for a great commercial center. An excellent sewer system, together with the drainage of Hamm's Fork, makes a perfect sanitary condition. Kemmerer has a staid, sober population of 1,000 people, who are greatly diversified in their pursuits, all the professions being represented. Extensive coal mines are located at Diamondville and Frontier, one mile east and west of Kemmerer, where more than 1,400 men are at times employed.

Kemmerer is likely to see some lively times the coming season as a large amount of outside capital has been interested there, and at the present writing no less than six drilling rigs are at work and in one instance a good showing of oil was encountered which is claimed would have developed into a commercial proposition but

(Continued on page 15.)



Atlantic and Pacific Well No. 1, on 10, 14-118, Uinta County, Wyoming.

any of these springs and agitating them the oil flow is considerably increased. As the bubbles of gas come to the top they ignite freely by passing a torch over them, myriads of flashes being secured,

days since and making my headquarters at that point was occupied several days in driving through the district and looking over the property of the various companies operating there.

has all the natural advantages that constitute a model town. It is located on the banks of Hamm's Fork, on the Oregon Short Line, and is a district division point for that railway. The Short Line



"Oil has paid greater dividends than gold mining."

"Oil does not run in veins; it is contained in basins of oil sand."

"The life of an oil well is unknown, though variously estimated at from twelve to sixteen years. Many Pennsylvania wells have been pumped continuously for fifty years."



"Oil has made millionaires in a day."

"Fortunes have been made in Texas oil at twenty cents a barrel. Why not in Wyoming oil at \$8?"

"The value of an oil well is about three times its earning power for one year. The earning power is about two barrels a day less than its output."



### A Snap Offered to Parties Wishing to Form a Syndicate

A syndicate could be formed to purchase the following described tracts of land in the Uinta county, Wyo., oil fields, recently discovered and producing the richest oil in the world, valued at from \$8 to \$10 per barrel as it comes from the ground.

Do not confound this with a stock deal. You purchase the land and form your own company, thus getting in on the ground floor.

#### Description of Land

SW.  $\frac{1}{4}$  and SE.  $\frac{1}{4}$  (320 acres) Section 22, T. 17 N., R. 120 W.  
NW.  $\frac{1}{4}$  and SE.  $\frac{1}{4}$  (320 acres) Section 34, T. 17 N., R. 120 W.  
NE.  $\frac{1}{4}$  and SE.  $\frac{1}{4}$  (320 acres) Section 28, T. 17 N., R. 120 W.

This tract is considered choice oil land. It adjoins the property of the Michigan-Wyoming Oil Co. (Sec. 26), now drilling, whose main office is in Grand Rapids, Mich. They have one of the best rigs in the field, progressing steadily, and are down 600 feet at the present writing.

A range of petrified shells, considered a sure indication for oil, crosses this property; there is plenty of water on the land and can mine its own coal. Prof. Arthur Lakes of Colorado examined this land and recommended it very highly. Prof. Daniels, geologist and mining expert from Chicago, who selected the now famous "Jager" well, has made a trip through this section of the country and selected six sites for the Michigan-Wyoming company. He says this company will get oil sure, and the surrounding land will be a promising oil field. This land lies northwest of Medicine Butte basin, surrounded by a rim of anticlines with the Butte itself as an anticlinal dome.

It takes money to sink oil wells and the task is too great for one man, no matter how large the profits, but by co-operation the biggest results may be reached. I am offering a chance of a fortune to the right party. The land must be sold quickly, and parties who mean business should write at once in regard to prices and further description.

**ISIDORE KASTOR**  
Member of Evanston Oil Exchange



# PACIFIC OIL REPORTER

Published Weekly  
The Oil Authority of the Pacific Coast.  
Endorsed By the California Petroleum  
Miners' Association.  
W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco  
Telephone, Bush 176.

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine Street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
F. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
Colorado News Co., Arapahoe street, Denver.  
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SATURDAY .....JUNE 6, 1903

Within the next two years the oil fields of Wyoming will play an important part in the oil industry of the West.

For years it has been known that oil existed in Uinta county, but the extent of the deposit had not been demonstrated. The developments of the last few weeks, as referred to in these columns, have proved that not only oil does exist in vast quantities in Wyoming, but also that the oil of this field is very valuable, especially for refining purposes, and that the oil industry will soon bring vast wealth to the oil producers of this new and as yet almost untried territory.

Wells are now being drilled by companies which have abundant capital.

As soon as enough wells have been successfully drilled, so that the oil production is sufficient to warrant, refineries will be established in the field, which is fortunately near the railroad, and thus a sure and satisfactory market will be provided for the oil output.

The future of the Wyoming oil field is very bright. The men chiefly interested are men of business, and many of them have the advantage of years of successful experience in the oil business. They will make no mistake, and there seems to be no danger of the possibility of adopting the policy of ruinous competition and lowered oil which has proved so

disastrous to many fields in their early history.

The oil men of Wyoming have before them opportunities for vast and successful oil enterprises, and it is to be believed they will seize upon them quickly and advantageously, and in their developments and in placing their product upon the market will make no mistake.

It would seem from the developments thus far made that the oil belt is both wide and long; the oil sand is deep and prolific; the formation is such that drilling is not difficult, and there are no great dangers from caves, water, sand or other sources of trouble which have made drilling in other fields so expensive and discouraging.

Wyoming is so situated that the market for oil is right at hand, and stretches out in every direction, north, south, east and west. Railroad transportation is abundant, and the demand for oil will not only be great at the start, but will increase very rapidly.

THE PACIFIC OIL REPORTER extends its heartiest congratulations to the oil men of the Uinta field for the success that has already crowned their pluck and perseverance, and wishes for them hundreds of producing wells, and a lively and profitable market for their output.

If this edition proves of any aid and encouragement to them in their enterprises for the development of the great Uinta field the PACIFIC OIL REPORTER will be greatly pleased and will consider its services as having been of practical benefit to an important and growing industry.

The Navy Department has decided that the California Oil experiments in the Navy with California oil in progress on the Potomac river front for the past year have progressed far enough. The crew of the torpedo boat Rogers, under Lieutenant John Halligan, United States Navy, have made tests, oil has been burned in the navy spasmodically for several years, and the tests have proved that for coast defense and torpedo boats the fuel is superior to coal.

Oil will not, however, displace coal on the larger vessels, in the opinion of Rear Admiral Melville. It is expected that several small vessels will be immediately equipped with apparatus for burning California oil, which is superior to Texas oil, as it contains greater caloric force in equal bulk.

The price of oil at Houston, Tex., ranges around or just under 80 cents on the cars. A good many deals have been reported at 80 cents on the cars and the demand is strong.

## GOOD FOR WYOMING OIL

### An Increased Demand for Paraffine Wax.

The following taken from the "Oil, Paint and Drug Reporter" of New York will be of interest to those interested in the Wyoming Oil industry as the oil from that district shows 42½ pounds of paraffine to the barrel:

"The consumption of paraffine wax in foreign countries has increased at even a more rapid rate than in this country, so that it is estimated the world's requirements for the current year will exceed 500,000,000 pounds. The official statistics of exports for the month of March showed an increase in shipments over the corresponding month last year of 4,463,000 pounds and for the period of nine months ended March 31st, the increase amounts to 11,179,000 pounds. Compared with 1901 the increase is 47,156,000 pounds. A remarkable feature of this increase in the export movement is the fact that nearly every country shows increased requirements. Of the few countries which have imported smaller amounts the only ones showing an important decrease are Germany, 2,644,000 pounds; Italy, 779,000 pounds; Africa, 346,000 pounds; France, 243,000 pounds. Great Britain takes the lead in the amount of increase shown with 5,500,000 pounds. The variations in the exports from month to month are of considerable extent, but are not significant, as to the great majority of countries, as shown by the exports during the nine months' period, the shipments showing a more or less steady increase."

### Special Coalinga Edition.

The special Coalinga edition of the PACIFIC OIL REPORTER will be published July 4th.

This edition will be the finest oil paper ever issued.

It will contain a full description of every company operating in the Coalinga field, and photographs of every rig in the field will be reproduced by elegant half tone cuts.

Send in your orders now for advertising and extra copies.

### Wyoming Oil Companies.

We can furnish you nice folders with the map of Uinta county oil fields on one side, and on the other whatever advertising matter you may desire.

We have half-tone cuts of the field which can be used in the folder free of charge. On the map your property will be shown in colors.

Price per thousand \$40. When a large number are desired a substantial reduction per thousand is made.

Orders filled promptly,

PACIFIC OIL REPORTER,  
318 Pine street,  
San Francisco, Cal.

## The Associated.

Rumors to the effect that the Associated Oil company has sold out to the Standard in any way are entirely wrong. The Associated has sold out neither its land or its contracts, nor is attempting to make any such arrangement. It has more oil than it can dispose of, and is now filling its new reservoirs with extra oil. It will soon commence drilling a number of new wells in order to save the oil which would otherwise be taken by opposition companies which are drilling close up to the Associated's line. It will also drill wells which have to be drilled in order to comply with the terms of the leases. It is selling oil and is making new contracts at greatly advanced prices, and intends to continue the business of marketing its own oil.

During the week over 80,000 shares of Associated stock have been sold in the exchange for 25 cents, and outside the exchange over 500,000 shares have been purchased, one man alone being credited with 400,000 shares. This looks as if the Associated had been investigated by capitalists and had been found all right.

## OIL PLACER CLAIMS.

### Wyoming Mining Laws on Locating and Retaining Oil Claims.

LOCATION CERTIFICATES OF PLACER CLAIMS. Sec. 2,553. Hereafter the discovery of any placer claim shall, within ninety days after the date of discovery, cause such claim to be recorded in the office of the county clerk and ex-officio register of deeds of the county within which such claim may exist, by filing therein a location certificate, which shall contain the following:

1. The name of the claim, designating it as a placer claim.
2. The name or names of the locator or locators thereof.
3. The date of location.
4. The number of feet or acres thus claimed.
5. A description of the claim by such designation of natural or fixed objects as shall identify the claim beyond question. Before filing such location certificate, the discoverer shall locate his claim: First, by securely fixing upon such claim a notice in plain painted, printed or written letters, containing the name of the claim, the name of the locator or locators, the date of the discovery, and the number of feet or acres claimed; second, by designating the surface boundaries by substantial posts or stone monuments at each corner of the claim.

(As amended by Chapter 100, Session Laws 1901)

### ASSESSMENT WORK ON PLACER CLAIMS.

Sec. 2,554. For every placer claim, assessment work, as hereinafter provided, shall be done during each and every calendar year after the first day of January following the date of location. Such assessment work shall consist in manual labor, permanent improvements made on the claim in buildings, roads or ditches made for the benefit of working such claims, or after any manner, so long as the work done accrues to the improvement of the claim, or shows good faith and intention to hold possession of said claim.

### AMOUNT OF ASSESSMENT WORK.

Sec. 2,555. On all placer claims heretofore or hereafter located in this State not less than one hundred dollars worth of assessment work shall be performed during each calendar year from the first day of January after the date of location.

(As amended by Chapter 100, Session Laws 1901.)

### ASSESSMENT WORK UPON CONTIGUOUS CLAIMS.

Sec. 2,556. When two or more placer mining claims lie contiguous and are owned by the same person, persons, company or corporation, the yearly expenditure of labor and improvements required on each of such claims may be made upon any one of such contiguous claims if the owner or owners shall thus prefer.

(Section 2,557 repealed by Chapter 41, Session Laws 1901.)

### EFFECT OF FAILURE TO DO ASSESSMENT WORK.

Sec. 2,558. Upon failure of the owners to do or have done the assessment work required within the time above stated, such claim or claims upon which such work has not been completed shall thereafter be open to re-location on or after the first day of January of any year after such labor improvements should have been done, in the same manner and on the same terms as if no location had ever been made; Provided that the original locators, their heirs, assigns or legal representatives, have not resumed work upon such claim or claims after failure, and before any subsequent location has been made.

### AFFIDAVIT OF ASSESSMENT WORK DONE.

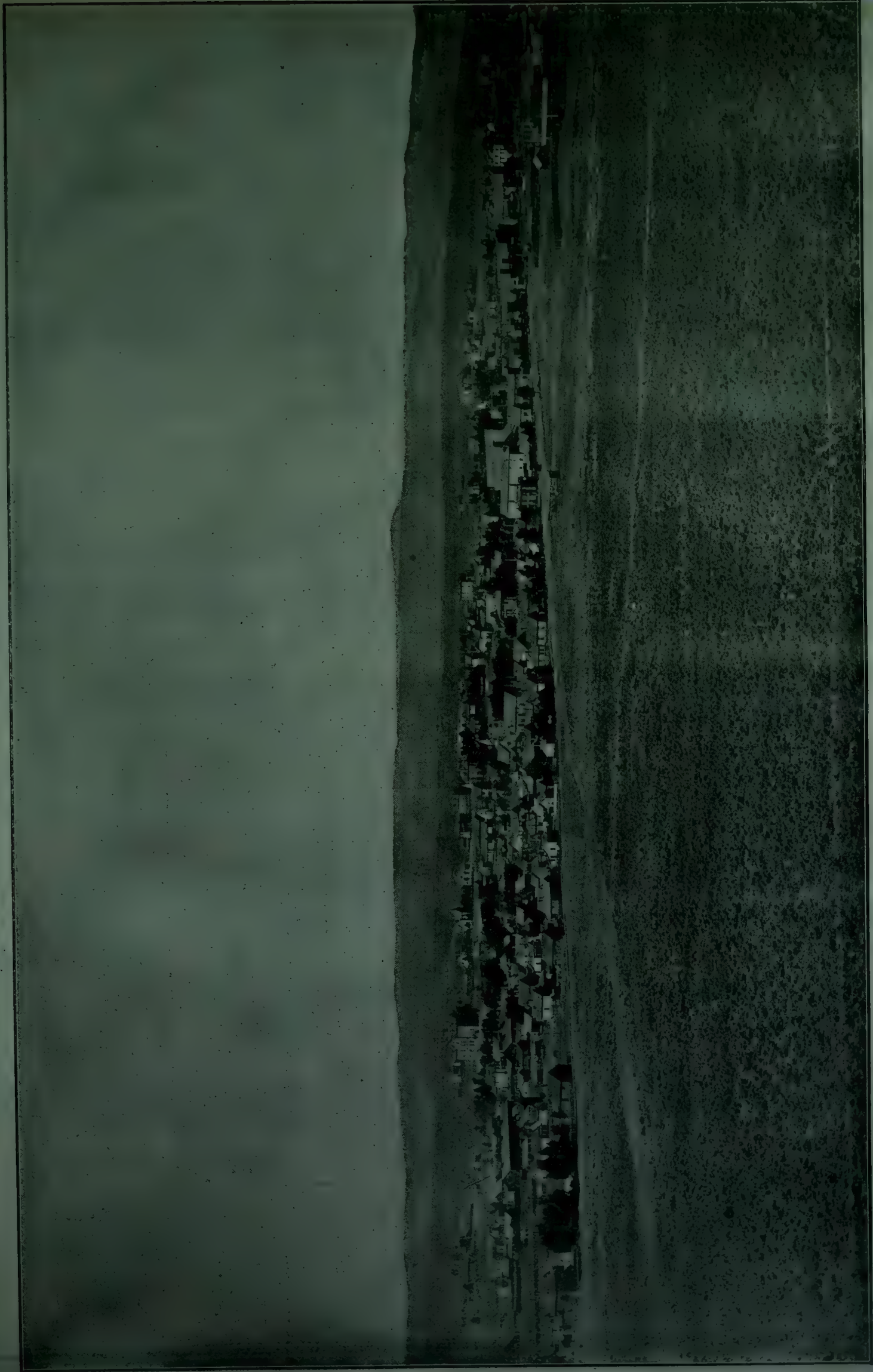
Sec. 2,559. Upon completion of the required assessment work for any mining claim, the owner or owners or agent of such owner or owners shall cause to be made, by some person cognizant of the facts, an affidavit setting forth that the required amount of work was done, which affidavit shall within sixty days of the completion of the work be filed for record, and shall therefore be recorded in the office of the county clerk and ex-officio register of deeds of the county in which the said claim is located.

(As amended by Chapter 100, Session Laws 1901.)

### PATENTS TO PLACER CLAIMS.

Sec. 2,560. When any person, persons or association, they and their grantors, have held and worked their placer claims in conformance with the laws of this State and the regulations of the mining district in which such claim exists, if such first day of January succeeding the date of location, then such person, persons or association, they and their grantors, shall be entitled to proceed to obtain a patent for their claims from the United States without performing further work; but where such person, persons or association, they or their grantors, desire to obtain a United States patent before the expiration of five years from the date hereinafter mentioned, they shall be required to expend at least five hundred dollars worth of work upon a placer claim.

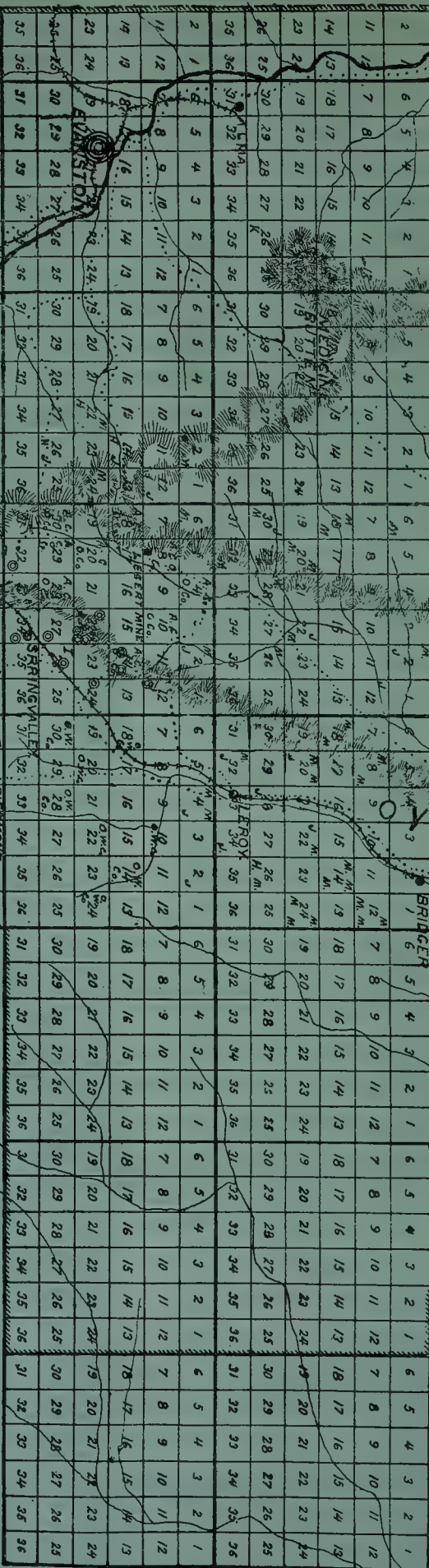
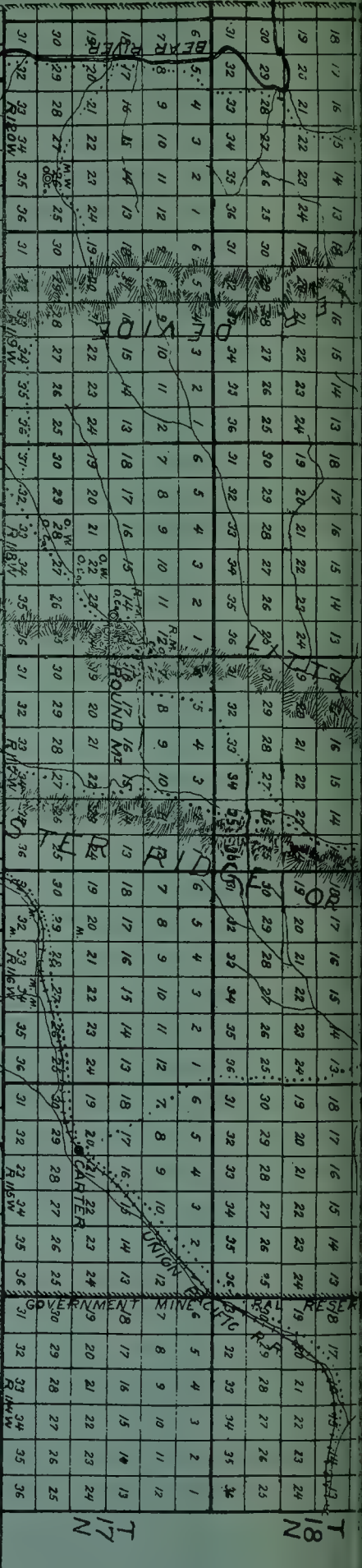




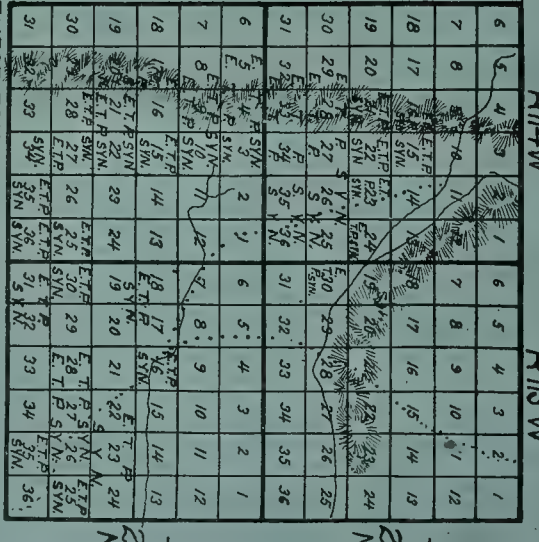
Evanston, Wyoming, Headquarters for Industries carried on in the Uinta County Oil Fields.



M.W.O.C.=MICH-WYO. OIL CO.  
K.=KNICKERBOCKER OIL CO.  
T.W.=TOLEDO-WYO. OIL CO.



THESE FOUR TOWNSHIPS BELONG DIRECTLY  
NORTH FROM HERE AND SHOULD JOIN ON THE  
TOP OF THIS MAP BETWEEN THE LINES 'A' AND 'B':

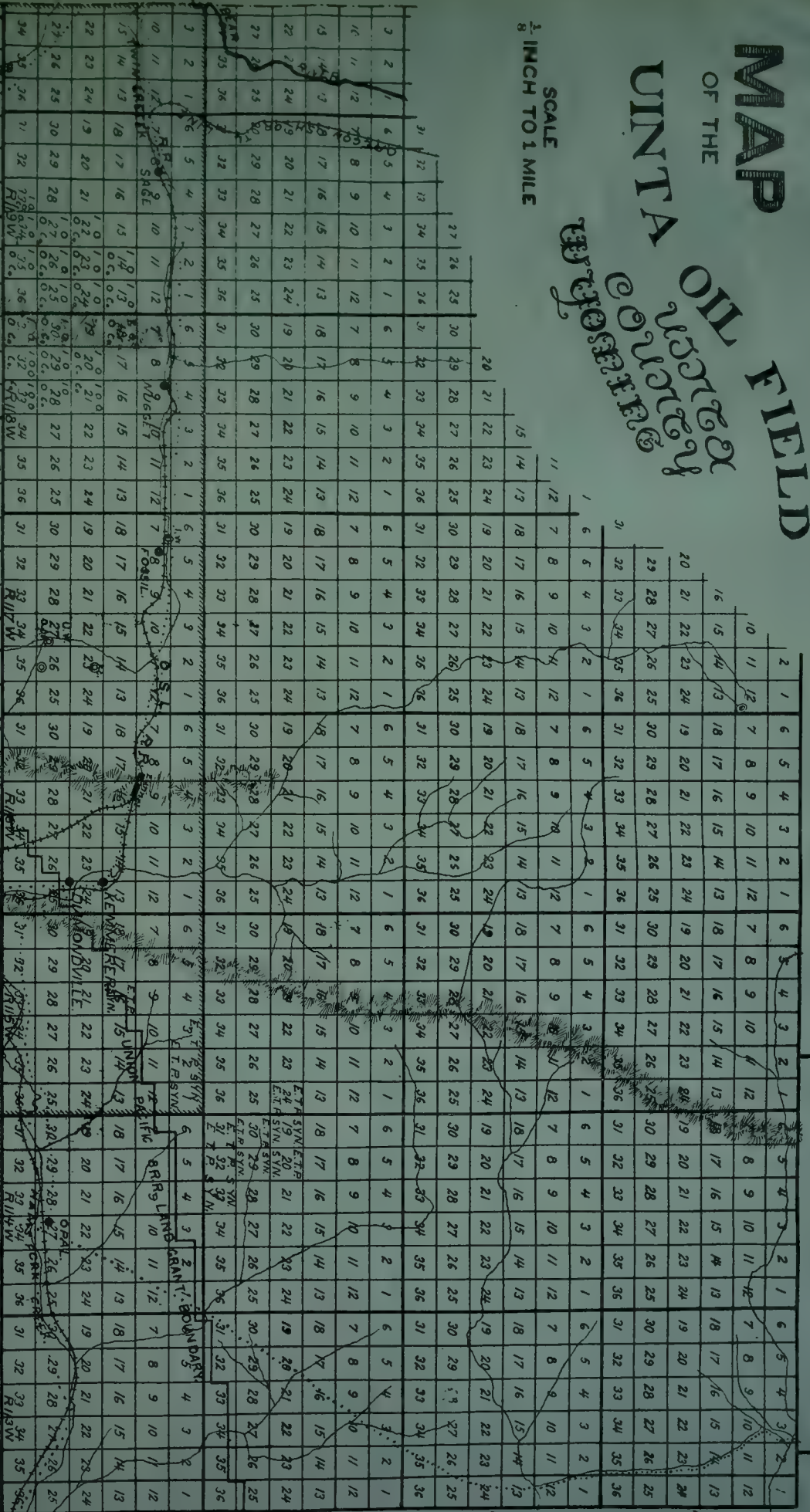




# MAP OF THE UTAH COUNTRY FIELD

SCALE 1/8 INCH TO 1 MILE

UTAH COUNTRY



## EXPLANATORY.

- ==== RAILROAD.
- ..... COUNTRY ROAD.
- OIL WELLS.
- M.O.C. = MAMMOTH OIL Co.
- A.C. = ASPEN OIL Co.
- A.P.C. = ATLANTIC & PAC OIL Co.
- A.C.O.C. = AMER. CONS. OIL Co.
- Q.W.O.C. = OMAHA-WYO OIL Co.
- B.O.C. = BETTYS OIL DEVP Co.
- J. = JAGER OIL Co.
- M. = MODEL OIL Co.
- I. = ILLUMINATING OIL Co.
- H. = HOMES OIL Co.
- R.M.O.C. = ROCKY MT OIL Co.
- F.C. = FOSSIL CONS. OIL Co.
- U.W.O.C. = UTAH-WYO OIL Co.
- I.W. = IDAHO-WYO OIL Co.





Kemmerer, Wyoming, a thriving Town located in the Heart of the Great Fossil Oil District.



## THE OIL FIELDS OF WYOMING.

(Continued from page 9.)

It was cased off and the well drilled deeper in the hope of getting a gusher. Good strikes will doubtless be made this summer as some excellent locations have been secured and the country in general bears the marks of a great oil field.

### A PROSPECTIVE FIELD.

While at Kemmerer parties told me of great beds of oil bearing

over three unbroken arches any one of which I believe to be the seat of large deposits of oil which will be found at no great depth. From the third anticline the formation gradually sloped to the east as far as the eye could see. Returning to Kemmerer we made a test of the shale by putting five pounds of the pulverized rock into a common gold retort and subjecting it to a moderate heat. From the five pounds of shale we got eighteen ounces of oil, and as we took the specimens from a point on the ledge that had been exposed to the elements for untold time it will be seen that greater results



Rig of Michigan-Wyoming Oil Company, on 26, 17-120.

shale located some twelve miles northeast of the town. On expressing a desire to see the property a party of business men offered to take me there and accordingly we set out upon the trip next morning, and, I believe, traversed one of the most promising parts of the oil field. At a point where the oil was discovered a solid ledge, more than thirty feet in thickness, was exposed strongly impregnated with oil. The dip was to the east on an angle of about 30°. Two oil springs were located near the ledge. We broke off several pieces of the shale, and struck out to the east following the dip of

the strata into the valley, thence could be expected from fresh samples. I believe this shale could be worked on a paying scale by extracting the oil from it in large retorts made for the purpose, but there is no question in my mind but that many wells

Owens  
Large  
Holdings  
of  
Oil Land  
in the  
Uinta  
Oil  
Field



Portions  
of this  
Land  
are now  
Offered  
For Sale  
on Very  
Favorable  
Terms

MR. WILLIAM J. CASHIN

This issue of the PACIFIC OIL REPORTER, in its extensive write-up of the Uinta county oil field, would be incomplete without special reference to Mr. W. J. Cashin, of the firm of Beeman & Cashin Mercantile Co., one of the largest houses of its kind in Wyoming.

Mr. Cashin is largely interested in oil lands and is also an officer and stockholder of several companies which were organized through his efforts; some of the companies are already operating in the field and others are making preparations to do so. Mr. Cashin is one of the largest stockholders in the Bettys Oil & Development Co. of Topeka, Kan., which company is now drilling just east of Evanston. It was through Mr. Cashin's efforts that L. L. Bettys, manager of the Bettys Co., became interested. One of Mr. Cashin's strong characteristics is that at no time has he made any misrepresentation regarding the grade of oil, value of land or development in the oil field. Numerous letters received by the bankers at Evanston have been turned over to him to be answered according to his judgment, as they had implicit confidence in Mr. Cashin's integrity in all matters.

One of Mr. Cashin's strong arguments has been that if there is a market for a low grade oil, such as is produced in Texas and California fields, there certainly must be a market and also a demand for the extraordinary high grade oil produced in the Uinta county field. The choice locations of land which he has secured, some being owned in fee simple, shows his unbounded confidence in the future development of the oil fields. To any party desiring to become interested in the Uinta county oil field we would suggest that they write to Mr. Cashin. He is vice-president of the Evanston Oil Exchange, an active member and in a position to secure land in any part of Uinta field.

will be brought in on the anti-clines beyond.

### IDAHO-WYOMING.

Among the companies first to get a foothold in the Fossil Basin was the Idaho-Wyoming Oil company. This company was organized by the business men of Boise, Idaho, and is composed of the leading business men of Boise and

Pocatello, Idaho. Of late, however, considerable of the stock of the company has been taken by capitalists of Boston, Mass. and Minneapolis, Minn. Of the directors six reside in Boise, two in Pocatello and one in Boston. All are representative men in their respective towns. Such men as Governor Frank Hunt, Bank of Idaho, Bank of Commerce and

## We Build Galvanized Iron Tanks

For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank.

Being situated near the Coalinga fields, we are in a position to make extremely low prices.

We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

## KUTNER, GOLDSTEIN CO.

HANFORD

### ROBERT S. SPENCE

Attorney and Counselor-at-Law  
Main St., Evanston, Wyo.

#### General Law Practice

Member of the Supreme Courts of Wyoming, Idaho and Utah, and of the Supreme Court of the U. S.

Twenty years active practice before the Local Land offices and the General Land office and Department of the Interior, Washington, D. C. Thoroughly familiar with all departments of land law. Is prepared to give advice and examine titles to OIL LANDS and make conveyances of same. Is prepared to take hold of the legal interests of oil investors and protect and care for the same. Will answer all questions pertaining to the oil lands of Wyoming and advise prospective investors. Best of references given. Member Evanston Oil Exchange.



others of like reputation are closely connected with the company. The company owns 1,500 acres of choice land in the Fossil Basin and have two of the most complete drilling outfits in the Uinta oil field. They avoided the mistake of employing amateur drillers, having secured men of many years' experience in some of the great oil fields.

Your correspondent visited the property of the Idaho-Wyoming company about two weeks ago and was greatly pleased with the prospects of this company. One of their wells was down 1,300 feet and cased the whole distance, the last string being six-inch. They were using a Union underreamer and following up closely with the casing thereby taking no chances of a cave in. Oil was encountered in one of the upper strata in paying quantities but the company decided to go deeper in the hopes of getting a gusher. At the present time oil is seeping into the well continually and there is every indication of getting a strong permanent flow at no great depth.

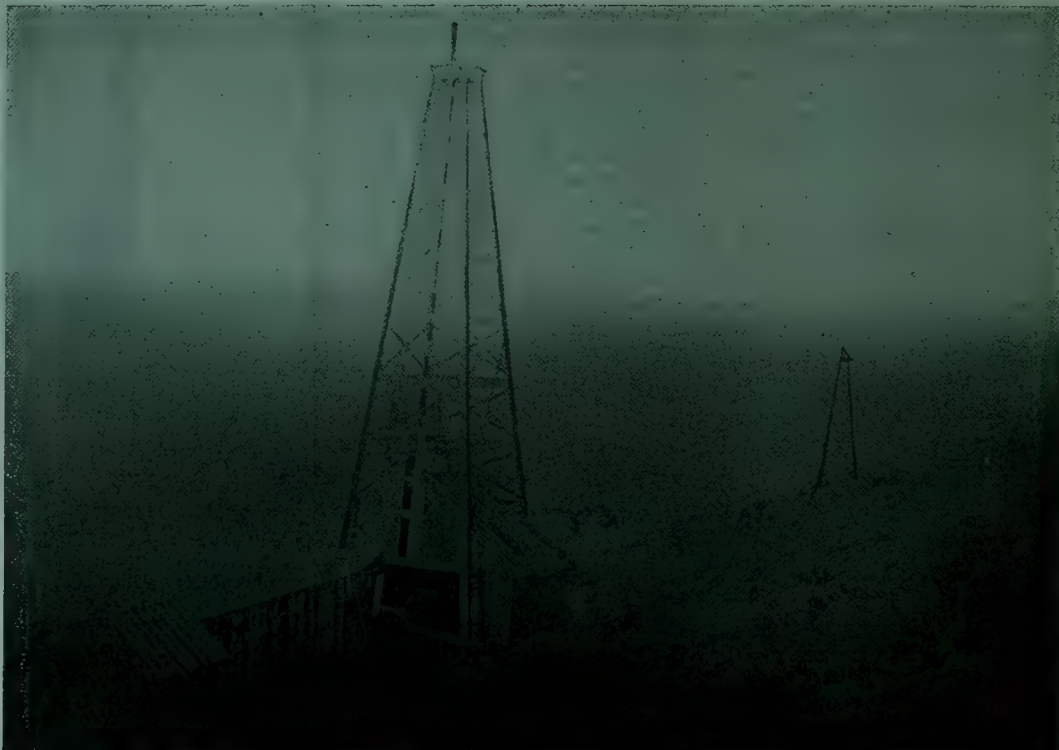
Mr. J. J. Deming, general manager of the company, was at the well the day I arrived there. I found him one of those pleasant, whole-hearted gentlemen who have made my Wyoming trip most profitable and enjoyable. He took me over the plant and accompanied me on several trips through the Fossil field. We traversed large tracts of rolling land which seemed to me particularly favorable for oil drilling. At a number of points we gathered pieces of shale that readily burned and I

secured some fine fossil specimens which are very abundant in the locality.

We also found an outcropping ledge of cretaceous shale at a

and according to Professor Knight, State Mineralogist, oil will likely be encountered the entire length of this ridge. All the producing wells are located near this ridge.

panies just commencing operations and a large number of rigs will be put in this spring. All available land had been taken up and is held at a high figure by those who



Atlantic and Pacific Well No. 3, on 22, 15-118, Uinta County, Wyoming.

point east of the town of Kemmerer and again about twenty miles north. It is known as Oyster Ridge and extends for nearly 200 miles through the oil fields,

I understand beds of shale exist in the Fossil district so strongly impregnated with oil that a barrel a ton has been produced from it. There are several oil com-

panies just commencing operations and a large number of rigs will be put in this spring. All available land had been taken up and is held at a high figure by those who

JAGER OIL COMPANY.

Among the foremost in the development of the Uinta county oil

## A BUNCH OF WELL DRILLERS

# THE STANDARD RESERVE OIL COMPANY

A Wyoming Corporation

OFFICES:

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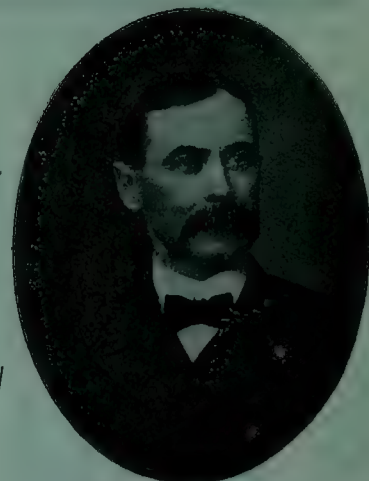
SUITE 60, 95 WASHINGTON ST., CHICAGO, ILL.

CONTROLS 10,987 ACRES

Oil lands most favorably located of any in the Spring Valley, Uinta Co., Wyo. oil fields



FRANCIS W. JONES, 1st V.-Pres.  
Contracting Freight Agent Chicago, Milwaukee  
& St. Paul R. R., Chicago, Ill.



COL. FRANK M. FOOT,  
Resident Trustee and Agt. Wyo. Receiver U. S.  
Land Office, Evanston, Wyo.



CHAS. O. RICHARDSON, Pres. & Treas.  
Civil and Mining Engineer, Oil Geologist, Ex-Deputy  
State Engineer of Colo., Chicago, Ill.

## A STRONG ORGANIZATION

CONSISTING OF

1st—A Civ. Engineer. 2d—A Financier.

3d—A Transportation Expert. 4th—A Chemist on Refining.

5th—An Expert on Lands and Titles.

A MODERATE INVESTMENT HERE SHOULD BRING GOOD RETURNS

INVESTIGATE

OUR MAP OF THIS OIL ZONE GIVES ALL DETAILS OF THE FIELD. SEND FOR COPY



JULIUS FRANKEL, 2d V.-Pres.  
Real Estate Capitalist, Chicago, Ill.



CHARLES W. DEAN, Sec'y  
One of the Original Directors of the Grand Trunk  
R. R. when it entered Chicago, Chicago, Ill.



field is the Jager Oil company. This company, which is composed of prominent Chicago gentlemen, was organized soon after the discovery of oil in the Union Pacific well at Spring Valley, and being one of the first on the ground

the spring of 1902 and located the site for their first well, which was on section 12, 15-118, about three miles north of Spring Valley.

Mr. Hardin at once set about constructing quarters for the men, grading roads and getting ma-

950 feet, encountering a copious flow of the finest petroleum.

The country was thrown into a fever of excitement and dozens of companies were formed in the next few weeks and drilling outfits arrived almost daily. Through it all Mr. Hardin, although enthusiastic at the ultimate success of the oil fields, was always reticent, and, with the forethought and energy that is characteristic of the man, set about securing patents, perfecting titles and securing such other desirable land that was to be had; consequently the Jager Oil company, profiting by the sound business judgment of Mr. Hardin, own property that is today pronounced by experts to be the best, and their stock has sold at a higher figure than any placed on the market from the Uinta county field.

The Jager Oil company will drill two or three more wells this season, and are ready to expend large amounts of money in the development of their valuable property. Sites for their new rigs have already been selected by the noted geologist, Prof. P. E. Daniels.

The officers of the Jager Oil company, all of whom are representative Chicago business men, are as follows: Frank Jager, president and treasurer; John Jager, vice-president; Dr. P. T. Burns, secretary; James J. Hardin, general manager.

The general office of the company is at 1431-37 Unity Building, Chicago, Ill., and if we have been too brief in this sketch of the

company, any additional information will doubtless be gladly furnished by the officers of the company.

#### OTHER COMPANIES.

Other companies operating in the field are the Fossil Oil company, Globe Oil company, Utah-Wyoming-Eastern company, Fossil Consolidated, and others. The Fossil Oil company is a Sheldon, Pa. corporation. They are drill-



James J. Hardin.

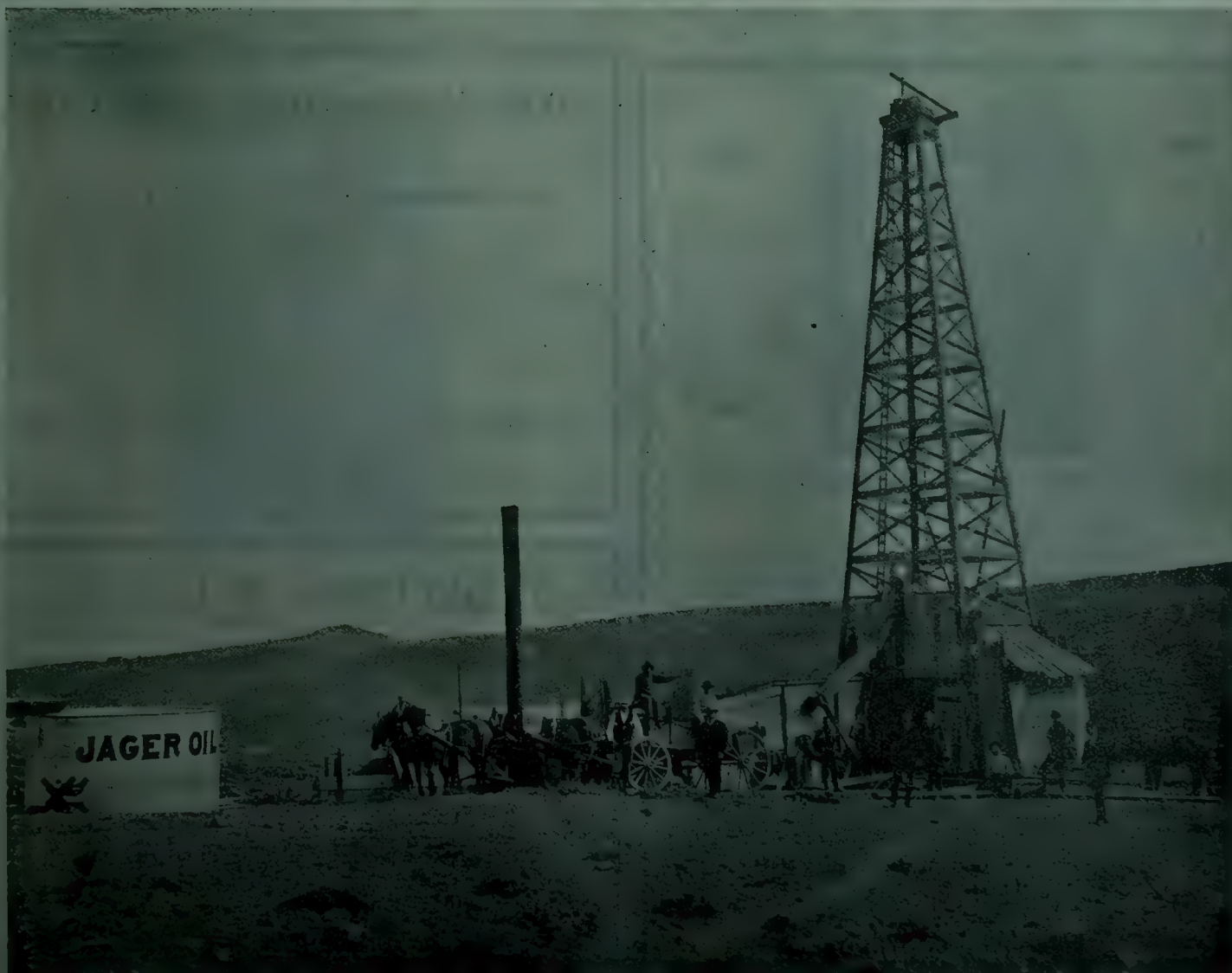
ing about six miles south of the town of Fossil and I believe have a fine location. The Globe company, a Beatrice, Neb. firm are drilling near what is known as the "Paraffine rig" about four miles southeast of Fossil, where a good indication has already been struck. All the land in this important district has been taken up and is held at a good figure by parties who can see its ultimate



Jager Well No. 2, on 12, 15-118, now being drilled near their producing well.

were enabled to secure some of the most promising locations. Mr. James J. Hardin, general manager of the company, accompanied by Prof. P. E. Daniels, a noted geologist, came to Wyoming early in

chinery on the ground, and by the first of May were busy drilling a hole toward the promised oil sand; nor were they to be disappointed, for on August 14th the drill penetrated the oil sands at



Well of Jager Oil Company, Uinta Oil Field, Wyoming.



worth; however, in many cases good land can be secured by parties who will sink wells at once.

#### THE UINTA OIL COMPANY.

The Uinta Oil and Refining company, with a capital stock of

ston, Wyo., and to enter extensively into the refining business. They will also lay pipe-lines to the various wells, having already contracted for the entire output of the Uinta Oil fields, which is at present estimated at 600 barrels a

Ausherman and J. H. Price. Work on the buildings will be commenced at once and machinery installed as soon as it can be gotten on the ground.

#### TO SHUT OUT FAKERS.

The Evanston (Wyoming) Oil

is represented by competent attorneys, thoroughly conversant with every detail and requirement of the laws governing titles to these lands.

The main purpose of this department is to shut out fake schemes of every description in the transfer of the Uinta oil lands. It is simply an extension of the policy they have heretofore followed for the protection of the purchasing public. We understand that only a nominal fee will be charged for the service.

The Evanston Oil Exchange was incorporated in the month of June, 1901, with a capitalization of \$10,000,000 divided into shares of \$100 each. The exchange is, at present operated principally as a bureau of information, the intention being to give all persons contemplating an investment in oil land or stocks of the different companies operating in the Uinta county field the most reliable information obtainable.

The board of trustees consist of the following: George E. Pexton, first vice-president; Loren E. Nebergall, second vice-president; Mason F. White, secretary and treasurer; Major F. M. Foote, Senator C. D. Clark, Isidore Kastor, J. Edmond Chapman and John C. Hamm.



Atlantic and Pacific Well No. 2, on Section 22, 15-118, Uinta County, Wyoming.

\$100,000 have filed articles of incorporation with the secretary of State this week. The company is composed of prominent Chicago, San Francisco and Evanston gentlemen and California experts. The company propose to establish a refinery somewhere near Evan-

ston. A representative informs us that the product will be disposed of in the nearby cities and to the railway companies; numerous contracts having already been promised. The directors of the company are: J. J. Hardin, George E. Pexton, L. E. Nebergall, B. M.

Exchange has established a legal department for the purpose of examining titles of land held by parties residing outside the State and for the expedience, convenience and protection of contemplating purchasers of oil land in Uinta oil fields. The department

#### LATEST STRIKES.

"The Atlantic & Pacific Oil company have brought in a 500-barrel well on section 10, 14-118, two miles south of Spring Valley. They have already penetrated thirty-five feet of oil sand and not through. The oil is of a slightly



Thirty years a resident of Uinta county, and fifteen years in business.  
Member Evanston Oil Exchange.

President and organizer of the Medicine Butte Consolidated Oil and Gas Co. Resident agent and first vice-president of the Round Mountain Oil Co.

#### A Brief Sketch of the Geological Formation of the Uinta Oil Fields.

BY JOSEPH ACOCKS.

For ten years previous to the discovery of oil in the Union Pacific well at Spring Valley, I occupied considerable time in examining the geological formation of the Uinta oil field. My object at that time was to ascertain what portions of that territory would warrant investment of capital in the production of coal and other minerals. I discovered that this field was made up of cretaceous beds of different ages and favorable for the occurrence of oil and gas.

The Uinta oil field is surrounded by chains of mountains. On the west is situated the Wasatch range, running north and south, and on the south is the Uinta range, running east and west. The upheaval of these mountains folded the cretaceous beds of the Uinta oil field into synclines and anticlines. Natural gas being the lightest, found a place in the arches of the anticlines; petroleum, next in gravity, followed and formed oil zones just below the gas, being forced into place by water pressure. In some parts of the field the water acted as a medium to force the oil into higher levels, and also as a collecting agent forcing all the oil before it, while in other parts of the field the oil pressure can be accounted for by hydrostatic pressure. The zones vary in width from a few hundred yards to several miles, while in length some of these anticlines reach the entire length of the oil field. On hearing of the oil strike at Spring Valley in the fall of 1900 I again turned my attention toward this field. I at once secured a large amount of land, which on structural and geological ground I consider very favorable for oil and gas. Attention was thus called to the field. One expert after another who were brought here from all over the world by capitalists to examine the geological formations of other fields concurred in the opinion that these lands offered very favorable and the best promise for oil and gas.

Any person or company wishing to become interested in the Uinta oil field please write. Information free. I am prepared to show visitors and experts over the field. Terms reasonable. Contractor for moving machinery, building, surveying, doing assessment work, etc. Oil land for sale. Address

#### JOSEPH ACOCKS

Evanston : : : Wyoming

Box 77. Phone, 15X

Reference: Evanston Oil Exchange

#### Wm. Newbrough, E. M., C. E.

(Columbia University)

#### Civil, Mining and Hydraulic Engineer

□□□□□□

Plans, Specifications, Maps, Blue  
Printing, Surveys and Reports.

□□□□□□

Oil Maps of Uinta County from \$1.50 to \$5.00

Send for Descriptive List

#### V. HUFFORD, M. E., C. E.

(Penn. State College)

#### County Surveyor. Civil Engineering. Land Surveying.

Plans and Estimates. Maps and Reports.

□□□□□□

Irrigation. Water Works. Construction Engineering. Oil Maps. Oil Land and Oil Stock. Assessment work performed by contract. Some very choice pieces of oil land for sale or lease on good terms. Special attention given to oil business.

□□□□□□

Beckwith Bank Building - Evanston, Wyo.



yet lower grade than other wells in the district."

The above message flashed over the wires to every part of the country by the Associated Press and by private concerns, promoters and investors brings a new era to the Uinta county oil fields. There is no longer doubt and uncertainty. Oil is here, oil of a superior quality and an output of over 800 barrels a day with a certainty of doubling the product within the next two months. Following the above message two days later another message was telegraphed over the country announcing that the American Consolidated Oil company had brought in another well on section 14, 15-118, two miles north of Spring Valley in the second sand; the first sand which produced about ten barrels a day having been cased off. Great excitement prevails and the community is in a fever of excitement. It is evident to all that the future of the oil fields is assured and the heavy land owners realize that fortunes have been made. Crowds of people gather about the wells, satisfaction and excitement manifested in the faces of all.

I visited the well of the Atlantic & Pacific Oil company yesterday and to say the least, what I saw was very gratifying. The sand was encountered at 870 feet and was making three barrels an hour from the start. Drilling was continued and at this time over forty feet of sand has been penetrated the inflow of oil increasing rapidly with every foot of sand, the drill passes through. No storage was at hand and the oil was running down a little ravine and forming a

pool some half mile away. The operators told me the well would be put on the beam as soon as they had passed through the sand. They said it was probable that the well would be shot, in which event a gusher will surely be brought in. The oil seemed entirely different than that produced in any other well in the field but as it has not as yet been analyzed I cannot make a statement as to

The American Consolidated well has not been tested as yet but the oil is of a 42° gravity and indications are that it will develop into a good producer. The company are purchasing more land and will enter the field to stay.

The Jager Oil company are completing their second rig on section 12, 15-118 and will be at work the coming week. Their second well

is about 500 to 1,000 feet from the first one, where they brought in a well last fall. The camp is located on the eastern slope of a low hill, a site selected by Prof. Daniels as an ideal one when the oil field first opened up. A large garden was flourishing near the camp which would furnish an abundance of vegetables and numerous flower gardens on every side made the camp a pretty one.



Atlantic and Pacific Camp, on Section 22, 15-118, showing Wells Nos. 1 and 2, Uinta County, Wyoming.

its value. Old Mr. John Fiero, who operated the Carter well away back in the 60's says from its appearance it is about the same quality as that for which the Union Pacific Railway company paid him \$28 a barrel for, they using it for lubricating oil without refining.

## The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED. It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

—MANUFACTURED BY—

**J. BARRETT, Allegheny, Pa.**

OIL

LANDS

FOR

SALE



Contracts

for

Assessment

Work

My home has been in the heart of the Uinta county oil fields for the past twenty-eight years, making me very familiar with every part of the country. I was one of the first to locate oil lands in this field, and my previous knowledge of the formations enabled me to secure some of the choicest oil lands. I am in a position to do assessment work, prospecting, etc. I have some of the best prospecting rigs in the field, and shall shortly add another large steam power prospecting rig to my equipment. Parties desiring prospecting, assessment work, etc., done by an experienced contractor, will do well to write for information.

**GEO. L. ACOCKS**

Member Evanston Oil Exchange.

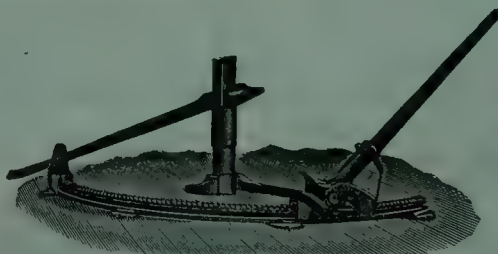
Evanston, Wyo.

**W. FORGIE**

WASHINGTON, PA.

Manufacturer of

Oil & Gas Well Rig Irons, Sand Reels, Cants, Arms and Pins. Also the Original Tool Wrenching Jack, the best and cheapest on the market.



For prices, etc., inquire J. D. HOOKER, Los Angeles, Cal., PARKE & LACY CO., San Francisco, Cal., Bakersfield, Cal.



**Evanston Lumber Company**

GEO. C. L. GOODMAN, Proprietor



## LATEST OIL NEWS.

## Development Work at the Wells During the Week.

## COALINGA.

C. V. Wisheart, superintendent of the Independence Oil company, has taken an option of the E½ of the SW¼, and the SE¼ of the NW¼ of section 24, 21-14. This land is located near Alcalde.

The California Oilfields, Limited spudded in on its well No. 13 this week. The rig for No. 14 is now under construction and drilling will begin immediately after its completion. While the exact number of wells the company is planning for has not been definitely decided upon, operation on new wells have and will continue with the same aggressiveness as heretofore.

A splendid producer was brought in this week by the Fresno-San Francisco Oil company at a depth of 950 feet. For over two hours it flowed a steady stream of oil 17° to 18° gravity sixty feet into the derrick through three-inch tubing. Conservatively estimated, this well will produce in the neighborhood of 200 barrels per day, being much better than the other two pumping wells of this company.

A 600-pound steam hammer has been added to the already well equipped shop of the Coalinga Iron Works and will be ready for use next week. From time to time the management of the shop has added department after department until it is in position now to do all kinds of repairing. It employs six men steady with a few extras occasionally to help during a rush.

Mr. C. C. Hillard of Bakersfield, for some years in the employ of the Oil Well Supply company at Sistersville, Va., has arrived in town to be assistant to Manager Chase, of the National Supply company.

Mr. H. L. Colby, secretary, and R. M. Mairs, treasurer of the Furniture City Oil company, both of Grand Rapids, Mich., spent several days in the field looking over their interest. The company owns twenty-two acres of land on section 6, 19-16, and its rig is ready for spudding in at any time. In from six to eight weeks the company expects to begin operations on its first well. This being new territory the success of the Chicago Limited is the result of assuming operations at the given time.

During the past week, Mr. John Page, the newly appointed general superintendent of the pipe-lines for the Standard company in this State, together with H. G. Morrow, the right of way man, spent two days here, looking over the work that has been going on in this field for the past two months. They were very favorably impressed with the working of the gravity field lines which are a complete success in every detail. At present the company is putting up houses and other buildings to serve as residence and office of the district foreman on section 6. The pumping station on section 27 has been operating for some time now with good success. The delay caused by the shortage of pipe in completing the work of laying the branch lines has retarded things somewhat for section 28, but the pipe is expected to arrive at any time now having been on the way several weeks. The pipe-line men left this week for Bakersfield to lay some branch lines for the company.

McClurg and Claypool's well No. 2 proved to be an equally good producer as No. 1, from 150 to 200 barrels. Work rigging up No. 3 is hurried to be ready for spudding as soon as the other well is put to pumping.

The National Supply company has taken an option on the lot next to F. Bennett's saloon and directly across the street from the depot, good for thirty days, and will in all probability begin erecting a store at once. It is one of the best centrally located lots for a supply store in town and practically the only available one. The price of the lot is \$1,800.

The Coalinga Consolidated Water company is making preparations to drill another water well on its plant, and also to add a new boiler. The entire pumping plant will be more grouped by removing the present boiler house, and adding the new boiler nearer to the wells. Pumping from nine wells steadily will obviate the water shortage that had been feared by some operating companies. Manager H. Brix is fully prepared to drill a sufficient number of wells and add

the necessary pumps to keep the entire field abundantly supplied with water ahead of the demand.

## COLUSA.

W. E. Youle has commenced to deepen the Bear Valley well, now 1,275 feet deep. He is prepared to go 2,500 feet.

The Arbuckle Independent publishes an article scoring the management of the Chehalis Oil company and asking pertinent questions as to what has become of the funds.

## KERN.

The Associated has put the roof on its immense reservoir at the Kern River field which will soon be filled with pro-

teenth dividend, which have amounted to \$30,000 a month.

The Alta Oil company is in a grave legal entanglement with A. B. Canfield and others.

## MENDOCINO.

The Russian River Oil & Development company have made a contract by which a well will be sunk to a depth of 1,500 feet, near Ukiah. J. E. Sorey, of Alma, is the contractor, and he says he will put the well down in ninety days.

W. E. Youle has contracted to drill at Ukiah, and has shipped machinery there from Colusa.

## MONTEREY.

The well of the Combined Oil and

The well of the Lompoc company is now over 2,100 feet and the oil sand is expected to be reached at 2,300 feet, the same as in well No. 1 of the Union, which is good for over 500 barrels.

The Union Oil company will at once drill well No. 4 500 feet from well No. 1. The Union will put down wells in the Lompoc field as fast as possible until they have an output that will reach 1,000,000 barrels a year from this field alone. Well No. 1 is completed and is good for over 300 barrels; well No. 2 is down over 1,000 feet; work on No. 3 has commenced and drilling is progressing rapidly; the derricks up for No. 4, and work will commence on No. 5 at once. The sites for a dozen more wells have been selected, and four rigs will be kept at work constantly.



Atlantic and Pacific Well No. 1 on 24, 15-118, known as the "Ellis" well, Uinta County, Wyoming.

duct of the company's wells. About fifty men were at work on the job.

The Monarch Oil company is building a 75,000-barrel reservoir in Sunset which it is proposed to cover. The lumber is now being conveyed to the ground.

The Dayton is down 1,200 feet and with good prospects.

H. W. McCray of the Midland Pacific Railway company has returned from a journey along the route of the new line. The surveyors are still at work on the coast end of the new line and grading operations will probably be resumed at an early date.

Fred V. Gordon of the California Consolidated Oil company reports progress on the survey for the pipe-line that will be constructed in the Sunset and Midway oil fields. The survey extends from the terminus of the Sunset railway and follows a northwesterly course into the Midway district. The plans as perfected will provide facilities for delivering oil from the various camps in the two fields at the railway.

The United Oil company, which recently made the purchase of the Stratton property on section 32, 32-24, is preparing for more development work. A well on this tract was drilled into the sand two years ago and though it has since continued to flow a steady stream of oil over the casing it yet lacks the finishing strokes. The new management will endeavor to penetrate the sand stratum and land the casing in a solid formation. Preparations are also being made to drill several new wells.

Last week well No. 4 of the Revenue Oil company, a well which has been pumped for three years, suddenly commenced flowing at the rate of over 500 barrels a day, and has since kept it up. It is on 4, 29-28.

On Friday a telegram was received stating that the drill of the Fulton in Sunset entered the oil sand at 775 feet, and a big flow of oil is the result. The drill will be sent on down to determine the extent of the oil stratum. Well No. 2 is expected to reach the oil sand this week, and well No. 3 is down nearly 500 feet.

The Imperial and Thirty-three Oil companies have just declared their eighth

Land company near San Lucas is down nearly 500 feet.

The Fulton Oil company brought in its second well in Sunset last Saturday.

## SAN BENITO.

Colonel Beane announces that work will commence within two weeks in developing the oil fields in the vicinity of Hollister. The lumber for the rig has been ordered and will soon be on the ground. The site for the well has as yet not been selected.

## SAN DIEGO.

The Yuba Oil company is reported to have struck oil in their first well.

## SAN MATEO.

The Purissima Oil company has leased the ranch of Thomas Johnson and will soon begin sinking wells.

## SANTA BARBARA.

The Union Oil company at Lompoc have struck a flow of water at 1,000 feet, which is not yet shut off.

## SANTA CRUZ.

Frank S. Vogan is in charge of the Los Gatos Oil company's operations, in Santa Cruz county, in the Lancaster canyon. Three wells have been spoiled on account of being crooked. The fourth well is now down 500 feet. The drill has passed through forty-five feet of sand containing some oil and gas. The drill is now in black shale with ten-inch drive pipe.

## SANTA CLARA.

The Alberta well is over 600 feet deep, and is expected to reach the rich oil sand next week.

The Watsonville company's well is now flowing at the rate of forty barrels a day although the well is choked with sand. The oil is meeting with a ready sale at a high price, as the market is near at hand, and freight charges are low.

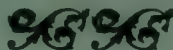


The busy Superintendent making his daily trip to the well.



# The Altamont Oil Company

Capital Stock \$1,000,000.00



Divided into 1,000,000 Shares, par value \$1.00 Each.

With 1280 Acres of Land Located in

## The Uinta County Wyoming Oil Fields

It is freely predicted by experienced oil men from all parts of the country that this will be one of the greatest oil fields ever known.

Experts from several parts have visited the field and without exception investments have been made or leases taken on their reports. In fact, the conditions here are so plain that it takes only persons of ordinary common sense to see that there are large quantities of oil in the district.

**THIS ADVERTISEMENT** is not for the purpose of exhibiting to you glaring photographs of flowing wells and pumping machinery and a hundred other things that do not exist on our property. Our aim is to state the exact truth to you in as simple language as possible. We do not promise to pay you dividends in any specified time in order to have people invest their hard-earned money, but we do say that we have the choicest located lands in this oil field, and believe that the possibilities of this field becoming the greatest oil field ever discovered in the history of oil discoveries is beyond a question of doubt. The oil is the highest grade illuminating crude petroleum that has ever been discovered in the world up to this date.

The percentage of failures are less in going into oil companies of this class (we mean those having lands well regarded by competent experts) than those who

embark in the grocery or general merchandising business, and while the chances of failure is less, the chance of profit is many times more. There are many people in California to-day who have an income of over \$1,000 per day on low grade oil that sells for less than \$1.00 per barrel, who take all their production from less than twenty acres of land.

### THE ALTAMONT OIL COMPANY

owns 1,280 acres of land of what is to-day, as above stated, the best located oil land in this oil field. Our land is not all located in one place, but is in eight different locations, thus securing to the company eight chances of finding oil in paying quantities, any piece of which would make this stock worth from \$1.00 to \$5.00 per share.

It is the purpose here to give only conservative estimates and accurate information—a plain statement of facts. Any one intending to invest in our company may for himself easily verify the statements herein made. We invite inspection at any time. The books of this company will be open to stockholders at all times. We invite you to go into the field and see for yourselves what we are doing.

There is surely every prospect for handsome profits for every one who invests in this field at this time.

During the year 1902, and before the sale of any of the stock, the incorporators of this Company purchased drilling machinery and did the necessary assessment work on its entire holdings as required by law. This expenditure in itself shows the confidence they have in the ultimate success of the Company.

**MASON F. WHITE, Pres.**

**CHARLES L. ELDRED, Sec.**

**OLIVER A. SMITH, General Eastern Agent,**

**DETROIT, MICHIGAN.**



### Coming to Wyoming.

Noel Perdon of Paris is now in Wyoming to investigate the oil fields of that state as the representative of the French industrial committee. A number of prominent Frenchmen, wishing to protect themselves and other investors, have banded together under the name of the industrial committee. It having been represented to prospective investors in France that the Wyoming oil lands are of great wealth and that the Standard Oil company will purchase all the oil that is produced there, the committee decided to look into these claims.

### Orders for Extra Copies.

Twenty thousand copies of the Special Wyoming edition have been printed.

Order for extra copies should be sent at once to the San Francisco office.

Single copies ten cents. By the hundred \$7.

Address: PACIFIC OIL REPORTER, 318 Pine street, San Francisco. Cash must accompany orders.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, June 3rd:

APOLLO.			
100 at	40.....	\$	40 00
ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.			
75,000 at	25.....		18,750 00
5,000 at	25 (S 10).....		1,250 00
AZTEC.			
1,500 at	75.....		1,125 00
50 at	82½.....		41 25
700 at	85.....		595 00
CALIFORNIA STANDARD.			
15,00 at	13.....		195 00
CARIBOU.			
100 at	90.....		90 00
600 at	87½.....		525 00
CENTRAL POINT CON.			
1,000 at	75.....		750 00
CHICAGO CRUDE.			
1,500 at	20.....		300 00
100 at	21.....		21 00
ESPERANZA.			
1,000 at	65.....		650 00
1,000 at	70.....		700 00
FULTON.			
12 at	2 75.....		33 00
100 at	3 00.....		300 00
INDEPENDENCE.			
4,500 at	16.....		720 00
2,667 at	17.....		453 39
JUNCTION.			
1,580 at	20.....		316 00
300 at	21.....		63 00
KERN.			
100 at	5 25.....		525 00
50 at	5 37½.....		268 75
300 at	5 75.....		1,725 00
725 at	6 00.....		4,350 00
LION.			
1,000 at	06.....		60 00
MONARCH.			
60 at	55.....		33 00
1,900 at	57.....		1,083 00
500 at	58.....		290 00
200 at	60.....		120 00
OCCIDENTAL OIL.			
2,600 at	21.....		546 00
50 at	20.....		10 00
OIL CITY PETROLEUM.			
100 at	33.....		33 00
500 at	34.....		170 00
REED CRUDE.			
9,050 at	40.....		3,620 00
1,000 at	41.....		410 00
SAN JOAQUIN.			
80 at	6 25.....		500 00

### SENATOR.

500 at	70.....		350 00
100 at	71.....		71 00
SOVEREIGN.			
300 at	42.....		126 00
STERLING.			
1,050 at	3 10.....		3,255 00
TOLTEC.			
200 at	20.....		40 00
TWENTY-EIGHT.			
25 at	4 35.....		108 75

118,699 Shares, Amount, \$44,622.14  
FISHER R. THEATRE CO.

150 at 2 50..... 375 00

150 Shares Amount \$3.75

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	
Apollo.....	.38	.40
Asso. Oil Co Stk. Tr. Certificates.....	.21	.25
Aztec.....	.85	
Bear Flag.....	.06	.10
California Standard.....	.13	.14
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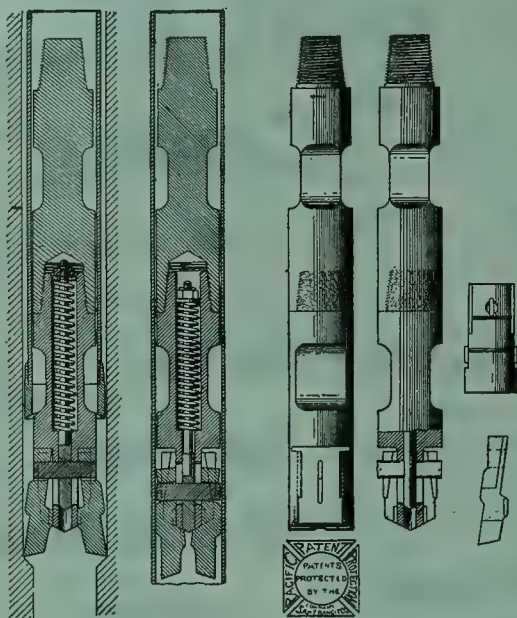
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# PACIFIC OIL REPORTER

VOL. 4. No. 32.

SAN FRANCISCO, CAL., SATURDAY, JUNE 13, 1903.

PRICE, TEN CENTS.

## OIL CONCENTRATION

**An Automatic Process that is Successfully used in Peru.**

**It Differs from the Elmore System, the Ore being Concentrated and Classified. Another Concentrator now being Constructed.**

On November 12, 1901, a contract was made in Lima, Peru, between Dr. O. Valentine, of Lima, and James W. Van Meter, of San Francisco, for the construction of a twenty-ton oil concentrating plant at the Hacienda of Santa Barbara, Yauli, Peru. The machinery was constructed and installed by the Fundicion De La Piedra Liza of Lima, and was inaugurated June 16, 1902, in the presence of some of the best known mining experts of Peru and Bolivia. The plant on August 15, 1902, was increased to forty tons' daily capacity and is at present giving the best of results. The ore which is at present being concentrated is from the mines of Celia, Julio and Santa Teresa, which is a gray copper ore ranging about 20 per cent copper, high in silver and lead, the value per ton ranging from \$30 to \$50. The ore concentration plant was the first one to be operated in America, says the Pacific Coast Miner,

and differs in principles and operation from the Elmore system which is in operation in England, the ore not only being concentrated, but classified by the regulation of the temperatures of both the oil and water. The concentration plant consists of one Krupp ball mill, twenty tons capacity, a system of rolls and jigs of twenty-five tons capacity, one six-foot pulp vat, two sheet iron spitzkasten, ten feet in height and fourteen feet in diameter, two centrifugal separators twenty-five inches in diameter, and one centrifugal drier thirty inches in diameter. The plant is operated by one turbine of sixty horsepower.

**THE SPITZKASTEN**—The Spitzkasten is mounted on four iron pillars and has three openings, one at the base, one on the side and one near the top on the inside. The opening at the base is to allow the tailings to escape; the opening on side is to keep the water level just below the level of the opening on inside. The

opening near top on inside is to allow the mineral charged oil to escape by means of pipe to centrifugal separator.

**THE DISTRIBUTOR**—The distributor works on the principle of the Butters and Mien pulp distributor used in cyanide works, only that it is supported from above by means of inclined uprights and ball-bearing collar, and can be raised or lowered as may be required. The hopper receives

the pulp and discharges it from the upper inclined pipes. Through the center of the hopper passes a pipe which terminates above in a hopper and below the hopper in a "T." From this "T" projects two pipes which terminate below the pipes from the hopper.

From a close examination of the distributor it will be seen that the pulp and oil discharging from the distributor not only cause it to revolve, but also creates a circular movement of the whole body of oil in spitzkasten, the current being in an opposite direction to that of the rotation of the distributor.

The rotation of the body of oil in a spitzkasten is very advantageous, as the pulp and oil, after being discharged from the distributor, is carried several hundred feet by the current before arriving at the oil discharge of spitzkasten, thereby giving sufficient time to allow all of the silica to free itself from the oil.

**THE CENTRIFUGAL SEPARATOR**—The centrifugal separator is

similar to that used in the drying of sugar, only that the basket has no wire screen. The basket is twenty-five inches in diameter and is operated by a Pelton wheel, from beneath, at a speed of 1,200 revolutions per minute. The speed of the basket can be changed to any number of revolutions desired and it has an automatic governor. A centrifugal pump is attached to the same shaft below the Pelton wheel which pumps the oil back to the distributor, through the heater, as soon as it is freed from the mineral in basket. All of the machinery for driving the basket is inclosed so as to be dust-proof, the basket being started and stopped by

at any desired degree. The heater is placed between the centrifugal separator and distributor.

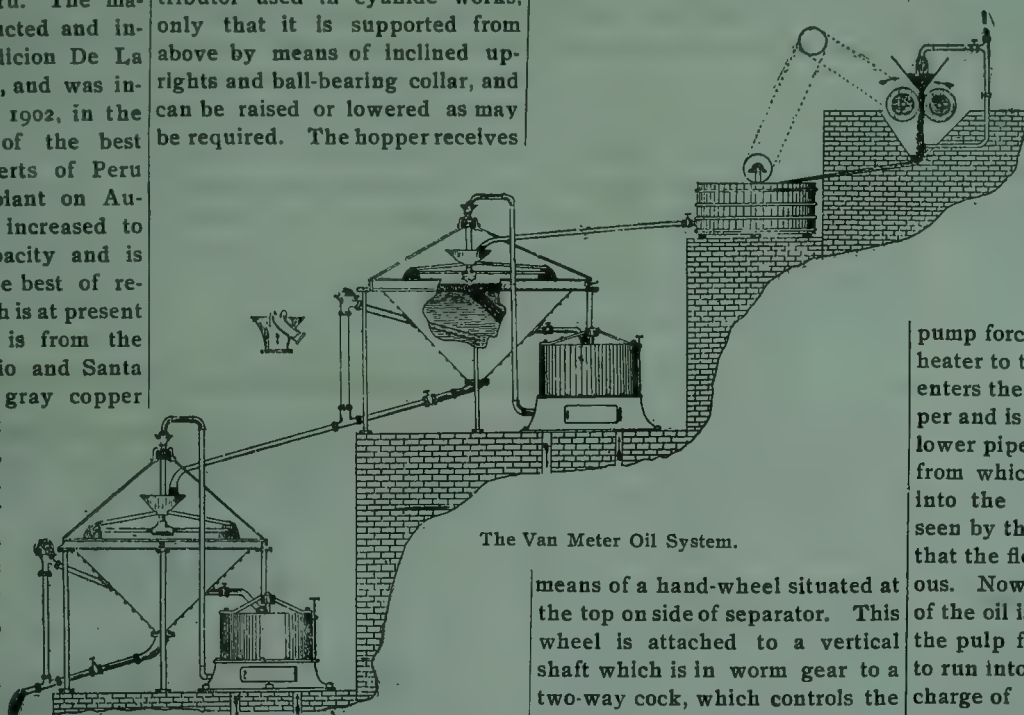
**THE DRIER**—Is an ordinary centrifugal drier, the same as used in all sugar mills for drying sugar. It is thirty inches in diameter and has a speed of 800 revolutions per minute.

**OPERATION**—The valves at the base of the spitzkasten and leading to the separator are closed. The spitzkastens are now filled with water to the height of the side escape. Oil is now placed in the spitzkastens to the depth of seven inches. Twenty gallons of water are now placed in the basket of separators and they are started. The valve now leading

from the spitzkasten to the separator is opened. The oil begins to flow into the separator and is discharged at the base of basket into the case of the separator and flows into the centrifugal pump situated at the base of the separator. The

pump forces the oil through the heater to the distributor. The oil enters the distributor in the hopper and is discharged through the lower pipe into the spitzkasten, from which it flows back again into the separator. It will be seen by the foregoing description that the flow of the oil is continuous. Now, when the temperature of the oil is at the required degree, the pulp from the vat is allowed to run into the hopper. The discharge of the oil and pulp from the pipe causes the distributor to revolve, which distributes the mixed oil and pulp over the sheet of running oil in the spitzkasten. The lower valves of the spitzkastens are now partially open. The tailings from the first begin to flow into the hopper of the second and from there are discharged to the dump. The pulp, in passing through the running oil, charges the same with mineral, according to the density of the oil. The mineral charged ore in passing through the separator is freed from the minerals which remain in the basket, the separator being stopped at intervals and contents removed. A strong feature of the apparatus and system employed is that practically a classification is made as well as a separation. From an ore containing several minerals several classes of concentrates can be produced.

The patents on this process in Peru were strongly contested by the representative of the Elmore process in London, and after a strong legal fight were granted to J. W. Van Meter. The process is



The Van Meter Oil System.

means of a hand-wheel situated at the top on side of separator. This wheel is attached to a vertical shaft which is in worm gear to a two-way cock, which controls the water to the Pelton wheel. By the movement of the hand wheel the water is shut off from the wheel. Now, if the hand wheel be moved a little more the water is forced into the Pelton wheel in opposite direction, which acts as a break and stops the wheel in from 30 to 50 seconds.

Mr. Van Meter is now constructing in San Francisco a new type of centrifugal separator which has many features of superiority over those at present in use. The material to be separated is received and discharged continuously, thereby avoiding the stopping and starting as in the old type to remove the concentrates from the basket. The concentrates when discharged, are in such a state as to dispense entirely with the use of the centrifugal screen drier.

**THE HEATER**—The oil is heated by steam, the heater being the ordinary spiral water tube heater. The heater is provided with a thermometer which electrically controls the steam valve so as to keep the temperature of the oil



patented in Peru, Bolivia, Chili, and Costa Rica. A ten-ton plant is in operation in Bolivia, treating the tin ores of Oruro, which is to be increased to the capacity of eighty tons. An experimental plant was erected in February, 1902, in La Paz, Bolivia, for treating the copper ores of Corcora which proved highly successful. The patents in South America are controlled by Carlos Gilderminster, Dr. O. Valentine, Captain Henry Guyer and James W. Van Meter of Lima, Peru.

A fifty-ton plant has been contracted for the Alpimina Mining company of Lima, Peru, for the treatment of ores in Carahuacra, and a forty-ton plant for Dr. O. Valentine to be situated at Huacracocha. The altitude of Yauli is 16,000 feet, situated on the Arroya railroad, 110 miles from Lima.

The oil used is from Piuru, Department of Tumbas, Peru.

Monthly statement of the oil concentrating department, for the month ending July 31, 1902, at the Hacienda Santa Barbara, Yauli, Peru, S. A.

No. Gallons Oil Loss		Assay Value Tailings Per Ton
Assay Value Concentrates Per Ton.	Centrifugal No. 2	Centrifugal No. 1
Amt. in pounds Concen- trates	Centrifugal No. 2	Centrifugal No. 1
Temperature of Oil.	Distributor No. 2	Distributor No. 1
No. Tons of Ore.		
MINE		
Santa Teresa	165	140° F.
Celia	80	160° F.
Julio	40	140° F.

Two hundred and eighty-five tons raw ore; three 1,175-2,000 high-grade concentrates for shipment Callao; nine 1,120-2,000 low-grade concentrates delivered to smelter; 197 gallons oil used; \$142, salaries expended for employees; \$12 for repairs on dam. (Signed) B. F. SLATER, Foreman.

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## ALASKA FIELD.

## What is Being Done in the Way of Oil Development.

Practical oil men who have returned from the new Alaska fields say that, properly speaking, the oil lands of Southern Alaska are divided into three parts: the Cold Bay district, the Cook Inlet district and the Kayak district. While all these districts show unmistakable evidences of oil, the Kayak district easily takes the lead, and will receive the first attention of the public, from the fact that several hundred thousand dollars have already been expended in surveying, building roads, bringing in expensive machinery, launches, barges and small boats; these, together with the overwhelming evidences of oil seepages on all sides, and in every direction, the fine sandstone and shale formations, the high grade of oil, its accessibility, temperate climate and timber, all go to make this a most promising oil field.

The Kayak is not a district without a well. Last September the "English Syndicate," as it is commonly called, struck oil at a depth of 365 feet. The oil was sent up 100 feet in the air, the evidence of which still clings to the tall timbers of the derrick. The well is capped by a heavy square piece of timber on top of the pipe, and chained and bolted to the timbers below. The gas pressure is so strong at times that the building and timbers tremble. At such times it is necessary for the watchman in charge to let off the gas and oil to relieve the pressure.

An analysis of the Kayak oil gives 69 per cent naphtha and illuminating oil, 65 per cent lubricating oil and the balance paraffine, vaseline and a small percentage of residuum.

The Kayak district is at all times accessible, there being two entrances, one between the mainland and Big Kayak island, the other between Big and Little Kayak islands. There is always good shelter for a ship at anchor about a mile from the town of Kayak, which is situated on Little Kayak island. Kayak is at present the headquarters of Mr. Whittlesey, the United States land commissioner, and Mr. Wardell, United States marshal. Kayak has two stores, two hotels, one saloon, postoffice, and a population of about 100 all told."

Castle Bay is sixteen miles from Kayak on the mainland, where the big well is situated; the bay is too shallow for ocean-going vessels, and all cargoes must be lightered and towed into the bay at high tide. A townsite of twenty acres has been laid out at Catella Bay, where a number of large log buildings are located.

The climate of this district is mild, the thermometer seldom

reaching zero during the winter season. The snow fall is usually three to five feet in a season. The past winter, however, there was a greater fall of snow than has been known for the past twenty years.

The Alaska Oil Syndicate, which owns 30,000 acres of oil placer grounds at Kayak, Alaska, has made a big shipment of machinery and supplies. The shipment includes one complete standard drill, two strings of tools, casing for twelve wells, as well as tents, and supplies of all kinds, 108 tons in all. J. S. Schafer goes up in charge of the drilling outfit, and operations will be commenced on some of the company's land between Cape Suckling and Chilkat river. The company, which was promoted by W. A. Abernethy, is composed exclusively of Seattle business men. It has \$40,000 in hand, which, it is estimated, will be sufficient for two years' operations, thus insuring that the properties will be developed. The manager, W. R. Brawley, is from Pennsylvania, and has thirty-five years' experience in the oil business. The officers of the company are: President, F. C. Harper; vice-president, L. A. Kinneer; treasurer, P. L. Runkel, and secretary, Charles Osney.

## SPINDLETOP WELLS.

## Story of the Rapid Decline in Their Production.

The history of the Spindletop pool is very instructive at this time. The Lucas gusher came in in January, 1901, and was wild for nine days, during which the flow is variously estimated from half a million to a million barrels. Drilling at once became very active, and within a year about 200 wells had been completed within the productive territory, which was then well defined. The pressure undoubtedly began to decline within three months or less after the field was opened, though it was still so high that the decline was not readily noticeable. At the end of the first year of production the pressure, although still manifesting itself occasionally with almost explosive violence, was perceptibly lowered. New wells rarely gushed spontaneously, as at first, but required bailing to remove the entire column of water and oil in the casing. Wells which had been shut off did not generally flow when the valves were opened, but to induce a flow it was necessary to agitate the oil in the casing, either with a bailer or by conducting compressed air to the

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bottom of the well. This general decrease in pressure continued until in the latter half of the second year few wells had a natural flow, and in some the oil was cut off by the invasion of salt water. This fate awaits every well in the pool, and it is only a matter of time when even pumping will no longer be profitable.

The development of this pool has been accompanied by enormous waste in the drilling of a large number of unnecessary wells and the loss of great quantities of oil, which has been allowed to flow over surrounding country and invite further loss by fire. The even greater loss which has been inflicted upon the commercial world by the over-capitalization of oil companies and the sale of worthless stock is a matter which might be well to dwell upon at length, but is not germane to the present discussion.

### OUR OIL CONSUMPTION.

Valuable Deductions Drawn by the San Francisco Chronicle.

The growing popularity and enormous value of the crude product of the California oil fields as fuel are clearly shown in the table of annual consumption compiled by the PACIFIC OIL REPORTER and reproduced in the "Chronicle" some days ago. Up to the close of last year the total amount of the petroleum product of the State from the time oil mining began here is placed at 41,604,343 barrels. In 1876 we were only consuming 12,000 barrels. In fact, that represented the total output of the year. It all came at that time from the Los Angeles and Ventura county wells. In 1881, about the time of the discovery of the oil measures in the city of Los Angeles, it suddenly jumped to 99,682 barrels. The highest point in the stage of oil-well development was reached in 1888, when 690,333 barrels were consumed. Then followed years of decadence in the industry, the consumption dropping to 303,220 barrels in 1889. In 1893 it aggregated only 470,179 barrels. The year following the Summerland and Kern county product began to cut a figure and the consumption amounted to 705,969 barrels. From 1895 to 1900 fuel oil steadily increased in favor, the consumption growing from 1,208,482 barrels on a regularly rising scale to 4,329,950 barrels. By that time the railroad companies began to realize its value for steam-making purposes, and as a result the consumption nearly doubled in 1901, being then placed at 4,329,950 barrels. Its adoption as fuel for manufacturing doubled it again the following year, the consumption then reaching 8,742,500 barrels, and last year increasing it to 13,692,514 barrels, or about one-third the total consumption from

the birth of the crude petroleum industry here. It is now entering into every industry where stationary power is employed and we are burning it at the rate of over 20,000,000 barrels a year.

Rapid as has been the growth of consumption, and marvelous as is the increase in demand for crude petroleum as fuel in this State and in the Hawaiian islands, where it is now displacing coal in manufacturing, consumption is a long way from reaching the productive capacity of the oil wells in active operation, while the margin for future development is practically unlimited. The greatest activity in development this year is not in the Kern fields but in the San Luis Obispo and Santa Barbara oil measures, which are located convenient to the sea and have, therefore, the benefit of the cheapest transportation to market. The lack of cheap transportation to tide water has so far been a drawback to further development in Kern county, and the oil fields in that section will not reach the maximum of their capacity until a cheaper means of reaching the market than now exists is provided.

It is interesting to note, however, that the California petroleum measures are much more productive than those of Texas, which were opened with a display of gushing wells yielding 75,000 barrels and upward per day. While the production of our wells is steadily increasing, the Texas wells are showing marked signs of exhaustion. Their total output is now placed at 32,000 barrels per day, or 11,680,000 barrels a year, which is only about one-half our present annual consumption, and the increasing number of water wells opened in the oil measures there is giving considerable anxiety to those who are interested in the industry. California possesses the only oil measures on the continent to-day which promise to be permanently productive.—S. F. Chronicle.

### GULF COAST OIL.

The Character is About the Same, viz. a Fuel Oil.

The character of the oil found in various parts of the Texas-Louisiana Gulf Coastal Plain is practically the same, but it is very different from that found in other fields of the United States. It is dark reddish brown, almost black, and has a disagreeably pungent sulphurous odor. It has a high specific gravity, varying from 0.904 to 0.963, Pennsylvania petroleum having a specific gravity from 0.800 to 0.817. In this, as in other respects, it is more nearly related to the California oils.

The flash point or the lowest temperature at which the oil gives off an inflammable vapor varies, according to different observers, from 110° to 180°. The wide variation is probably due to the different lengths of time the several samples on which the tests were made had been exposed to the air. Since the flash point depends on the proportion of the lighter hydrocarbons in the oil, it is gradually raised by exposure to the air, which permits these lighter constituents to escape.

The oil contains a large amount of sulphur, both as hydrogen sulphide, which largely escapes on standing, and is more thoroughly expelled by blowing air or steam through the oil, and also as other sulphur compounds. After freeing it from the hydrogen sulphide it has been found by various chemists to contain from 1.75 to 2.4 per cent of sulphur. At least a part of this appears to be sulphur, as such simply dissolved in the oil and not in chemical combination. It is probable that this high sulphur would not form a serious obstacle to the utilization of the oil for the preparation of illuminants. The chemical constitution of the distillates, however, appears to be such that with any refining process now in use the yield of illuminants is small and the quality poor.

It is as a fuel that the Coastal Plain of oil has thus far been chiefly utilized, and this will probably continue to be its principal use in the future. Tested in various forms of calorimeter, this oil is shown to have practically the same heating value as Pennsylvania petroleum, which is regarded as the standard liquid fuel. Practical tests in steam raising have been made with the Texas oil, and it has been found to have an evaporative power of 15.29 to 15.55 pounds of water per pound of oil used. Of the steam generated 3.1 to 4.8 per cent was used by the burner in spraying the oil. There was thus left available for use the steam from 14.74 to 15.16 pounds of water per pounds of oil used. In ordinary practice, without the use of special precautions to guard against waste, thirteen pounds of water should be evaporated by one pound of Texas oil, as compared with 6 to 6.5 pounds by the bituminous coal of Indian Territory, 8.7 pounds by Pittsburg coal, and 9 by Pennsylvania anthracite. From these relative fuel values it appears that 3.1 barrels of Texas oil may be regarded as having the same fuel value as one ton (2,000 pounds) of Southwestern bituminous coal and 4.31 barrels of oil as one ton of Pittsburg coal.

It should be noted, however, that the conditions under which coal and petroleum are used in ordinary practice favor the obtaining of a larger per cent of the theoretical fuel value in the petroleum than in the coal. Also a deduction of at least 10 per cent should ordinarily be made from the fuel cost of petroleum on account of the economy in handling the liquid fuel as compared with coal.

As a locomotive fuel petroleum has many additional advantages over coal. Practical tests have shown that its use may add as much as 30 per cent to the efficiency of the boiler, while it weighs only 67 per cent as much as coal having the same heating capacity. From these tests it appears that with coal at \$3 per ton petroleum should be worth 97 cents per barrel as a locomotive fuel.

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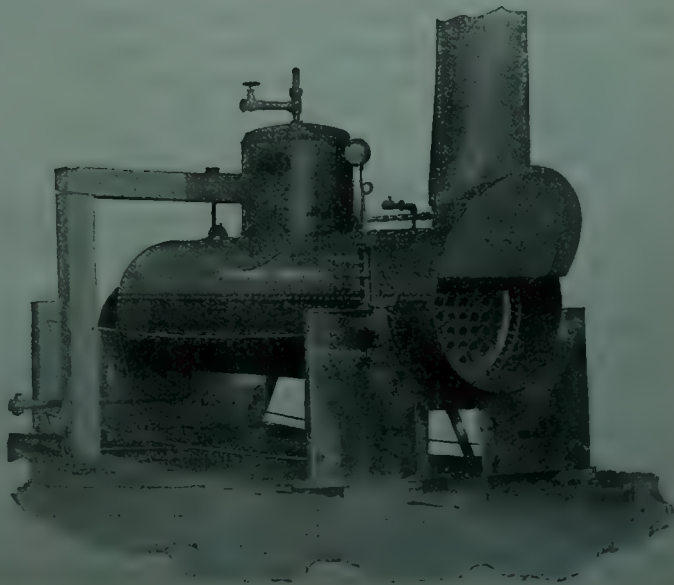
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## A NEW PAVING PROCESS

### How a Satisfactory Roadway is made in Ontario, Canada.

**A Mixture of Tar and Crushed Stone Called "Tar-Macadam" is said to Equal the Finest Asphalt Pavement.**

"Tar-macadam roadways in Ontario" is the subject of a report by Consul James M. Shepard, of Hamilton, from which it appears that paving for streets, in every respect the equal of asphalt, can be laid at a much lower cost by a combination of tar and crushed stone. A tar-macadam roadway can be constructed for from one-third to one-half the cost of asphalt or vitrified brick and is said to be more enduring than either. The first tar-macadam road was laid in Hamilton, Ontario, twenty-two years ago by the city gas company. The street is still in good condition and is used by teamsters in hauling heavy loads of merchandise from the railway. The manner in which this pavement was laid was crude in comparison with modern methods of doing the same work, and yet the street has required very little to keep it in repair.

The average cost of tar-macadam paving in Hamilton as reported by Counsel Shepard is 68 cents a square yard. The asphalt pavements put down in the same place ten years ago cost more than twice as much as tar macadam to construct and have involved almost constant expense to keep in repair. Judging from experience, and with the latest methods of combining the material, a tar-macadam road will give good service for at least ten years, and it then can be resurfaced at a cost not exceeding 25 cents per square yard. The tar-macadam road is almost as noiseless as asphalt, and is easier on horses, with less jar and no danger from slipping in rainy weather. Another advantage is that it is almost dustless. During the years 1899, 1900 and 1901 Hamilton laid 868 miles of tar-macadam streets at a total outlay of \$145,000.

The manner of constructing the tar-macadam roadway as given by the city engineer of Hamilton, calls for an excavation of the street to a depth of 12 inches. A foundation of crushed stone six inches thick is then put in place and thoroughly rolled, care being taken to keep the sub-grade parallel with the cross section of the street. The broken stone for the next course is placed on a mixing board, and the hot tar applied by means of a big dipper. After the first application of tar,

the pile of stone is turned over twice by shoveling, the shovels being kept hot to facilitate the process. The operation of tarring is again gone through with alternate turnings of the mass until no bare spots can be seen on the stone, or, in other words, until each stone has a coating of tar. To give the best results, the broken stone must be entirely free from moisture before being tarred. As soon as the stone and tar have been thoroughly incorporated it is wheeled onto the roadway and raked into conformity with the cross section. This is now thoroughly rolled. The stone used in this course is broken to a size to pass through a 2½ inch ring, and laid to a depth of five inches before being rolled. The third or top course is composed of gravel screened through a ¾-inch mesh and mixed with tar, about 20 gallons of tar being used to one cubic yard of gravel. This is mixed in an asphalt mixer and brought to the work hot, scattered over the roadway, and raked in, the utmost care being taken to get the surface to true grade and section, none but the most experienced men being employed in this portion of the work. The whole is then rolled, after which screenings from the crusher are scattered broadcast over the surface, to be worked in by traffic, the object being to harden the surface of the pavement and to give it a more pleasing color than the dead black of the tar.

While Consul Shepard says this method of paving can be laid for 68 cents a square yard, the report of the board of public works shows an actual expenditure of \$1.049 per square yard. The difference in the figures is ascribed to the advance in the price of labor from 16 to 20 cents an hour. The material of which this tar-macadam pavement is constructed ought to be as cheap in the United States as in Canada.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## PEERLESS REPORT.

**Good Showing Made by This Excellent Company.**

From "Report No. 50," just issued by the Peerless Oil Company the following items are extracted:

Since making in November last the new agreement with Pacific Coast Oil Co., described in Report No. 49 under date of January 19, 1903, the following improvements have been made at Peerless wells.

1. Eight new wells have been completed and two additional wells are drilling. The completion of these two wells will give us twenty-four operating wells.

2. Two additional 70 h. p. boilers have been set at Power Station No. 1, two of the same at Power Station No. 2, and two 55 h. p. boilers have been set at our pipe line pumping station.

3. A fourth water well has been drilled and an additional water tank has been set up.

3. Five additional cottages have been erected for our workmen.

5. Two new reservoirs have been constructed, one with capacity for 100,000 barrels. These two new reservoirs, with Reservoirs 1, 2 and 3, give us storage capacity aggregating 230,000 barrels.

6. Our oil flumes have been torn away and have been replaced by a complete system of surface pipe lines, conveying the oil from our various wells and sump holes directly into our reservoirs.

7. The Pacific Coast Oil Co., has laid an eight inch pipe line from its reservoirs to our principal pumping station, for our exclusive use. This greatly facilitates our oil deliveries.

These betterments completed, we may now consider our property to be in full operation.

### CONTINUED DRILLING.

Our production now averages 4,400 barrels per day. After completing our next well (new No. 3) and after cleaning out certain of our wells which have become clogged, our production will certainly exceed 5,000 barrels per day.

In order to keep up our production, however, and to make up our delivery shortage, we shall continue drilling with one drilling crew.

No additional improvements of magnitude are contemplated for the near future.

### MIDWAY PEERLESS.

During the latter part of the year 1902, this company purchased forty acres of promising land in Midway Oil district, on which a well is being drilled. The existence of oil in paying quantities on this land is believed certain and we expect this property to add materially to Peerless values.

### FULTON.

The three Fulton reports sent out to Fulton and Peerless stock-

holders, have given a complete view of the affairs of Fulton Oil company. There is every reason to expect that Fulton will be in condition to begin paying dividends on its par value before the close of the current year, and the holding of 50,000 shares of Fulton Oil company stock by Peerless Oil company, should add not less than \$5.00 per share to the intrinsic value of Peerless Oil company stock.

### DIVIDENDS.

There is no intention to increase or diminish the rate of our monthly dividends until the indebtedness incurred in making the improvements above mentioned shall have been paid in full.

### New Refining Process.

The Echo says that O. S. Hickey, of Bakersfield has discovered what, it is claimed, is the cheapest process of refining oil that has yet been found. With this process, Mr. Hickey says, it is possible to produce a pure white oil of the finest quality at a cost of not more than 2½ cents a gallon. This, too can be done with the heavy black oil of the Kern River field as well as with any other. An unusually large amount of distillates is also obtainable by this process. Mr. Hickey has been experimenting some time with plans for refining oil, but failed to get results until quite recently when he discovered what he wanted through a mistake in mixing some chemicals.

It is Mr. Hickey's intention to have his discovery patented at once and he hopes to realize something substantial from it in the near future.

### New Incorporations.

The following have filed articles of incorporation with the Secretary of State:

Kern Trading and Oil Company. Principal place of business, San Francisco. Capital stock, \$1,000,000; all subscribed. J. Kruttschnitt, J. H. Wallace, W. A. Worthington of San Francisco, J. L. Wilcutt of Oakland, J. E. Foulds of Berkeley, Directors.

American Briquetting Company. Principal place of business, San Francisco. Capital stock, \$100,000; subscribed, \$5.00. Directors, Geo. C. Carr, O. C. Hamlet, C. Demetrak, Selah Chamberlain, C. P. Stidger of San Francisco.

### Got Rich Quick.

Ephraim Cecil, owner of a small farm lying less than a mile southeast of Parker City, Indiana, is now a man of wealth beyond his fondest dreams. From a poor farmer he has risen to an income of \$3,000 a month. The St. Louis Oil Company leased the farm for drilling purposes and sunk a well that was a gusher. It is now pumping 400 barrels a day. Later, others were drilled. The latest well drilled is producing between 500 and 600 barrels of oil a day, and Mr. Cecil, owner of the farm, is receiving one-seventh of the product, which will net him more than \$3,000 a month.



## ADVICE ON OILING ROADS.

### Valuable Address Delivered by Supervisor Brooks of Sacramento.

#### The Convention of Supervisors Held Recently at Martinez Listen to Suggestion as to the best methods of Oiling Roads.

At the convention of the supervisors of many counties at Martinez, held last week, Supervisor Brooke, of Sacramento, delivered an address on the subject of oiling roads, which was reported as follows:

The problem of rendering adobe roads firm and suitable for heavy traffic, especially in winter, is one which has taxed the weary brain of many a road commissioner, and has finally been given up in despair, as the nature of this variety of soil offers little or no resistance either to rain or sun. The rain melts it, transforming it into a soft, oozy black substance, which, churned by travel into the consistency of un-cooled jelly, sticks to the wheels and harness, impeding the motion of the vehicle and the movements of the animals, thus increasing the labors and decreasing the profits of the farmers who are compelled to haul their produce over such roads. As it dries it cuts into great irregular ruts and cracks, making it almost impossible for man or beast to find a place whereon to set his foot, thus necessitating a much greater decrease in the weight of the load to the same amount of horse-power; and finally, as the summer heat comes on, the dry, black cakes cut up into powder by the action of the travel, forming a bed of thick dust, which, filling the deep ruts and rising on both team and driver, make breathing almost an impossibility.

This being the nature of the soil under discussion, the most reasonable and, in fact, only remedy apparent would seem to be the application of some material which would cause it to resist the action of the weather. A macadam surface might answer the purpose, but it is too expensive for serious consideration; besides, it is much more difficult to secure an adobe foundation than of any other soil. Summer sprinkling and strawing have been tried and found wanting. It behooves us, therefore, to inquire into the merits of oil as applied to an adobe surface and aim to discover whether such application may be made successfully, or whether a more satisfactory result might be gained by surfacing with other materials. When oil as a road surfacer first became popular, grave doubts were entertained as to its applicability to an adobe soil, but experiments have been made in certain localities with very satisfactory results, and my personal observation and experience has led me to believe that oil, if applied properly, or as I may say, "according to Hoyle," will prove as great a success upon adobe soil as it has been proved to be upon all others.

In order successfully to oil an adobe road, certain features of sprinkling, grading, etc., should be

closely observed. The road first should be well rounded and crowned before the last spring rains in order to secure a reasonably firm foundation; when the weather commences to get dry sprinkle it with water sufficient to prevent the accumulation of dust. When ready to apply the oil sprinkle very heavily with water, then harrow it until well ridged; after this apply the oil very hot, but not in too great quantity, as a priming coat. All travel should be kept off the oiled portion of the road for several days, according to the condition of the weather; then harrow it thoroughly to mix with the soil. It should then be allowed to stand for about three days if the weather be hot or longer if it be cool; then permit it to be traveled for two or three weeks, or until the volatile oils have been absorbed by the earth and atmosphere.

Before applying the second coating of oil, it is desirable, if at all possible to do so, to spread a thin layer of coarse sand, fine gravel sediment or red clay, whichever is the most easily procurable, over the oiled surface. This surface coating may be spread with shovels, but a sanding machine is much more efficacious, being quicker, sprinkling the material more evenly and is on the whole much more economical than the use of shovels. A much heavier coat of oil should be then applied and travel on that portion of the road should be suspended until the oil has had time to incorporate with the soil and

the volatile oils have disappeared. A third and last coat of oil should then be applied, heavier than the second coat, and should be protected in like manner until it has reached a condition when travel may be resumed. The oiled surface should be from twelve to fourteen feet in width, or wider if necessary, and by applying the oil properly and methodically, there can be no question but that a surface can be obtained of sufficient thickness and solidity to render it impervious alike to water and to heat. I should think that from 400 to 450 barrels of oil per mile should be used to surface properly an adobe road, although 250 to 300 barrels per mile is the variously estimated quantity used upon other soils.

Such a surface would act as a carpet in covering, shedding the water, which must also be drained off the sides of the road. This, however, can be very easily accomplished, with but a trifling expense. After such a road has once been finished, it is easily kept in repair, and the application of fifty or sixty barrels of oil per mile each year, or even less, would keep such a road surface hard and smooth, utterly impervious to the effects of weather or the strain of traffic, and would prove a boon to the people who travel it which they can no appreciate until they have tried it.

No circumscribed rule may be followed with regard to the oiling of roads, for different conditions compel different methods. A person must exercise his own judgment in a large degree, conforming to the situation or circumstances by which he may be governed, which applies to the oiling of roads the same as to all other lines of business. A good road running through a community will return to the people 100 per cent on the money expended, and we must take into consideration the fact that adobes, as a rule, unusually rich and productive, and that these roads run through some of the very best producing lands that we have. And

what a godsend to a weary team, after struggling through mud or dust, uncomplainingly, straining every nerve and muscle to draw those unjust burdens which God never intended them to draw, but which man commands and they obey, to step upon a smooth, even road where there is no jerking on their necks, nor straining at the collars.

In the cause of humanity, we owe some consideration to the dumb brutes which we have pressed into service, and which serve us faithfully and honestly.

The time has come when there is no further excuse for ill-kept roads and it is "up to" the people to assist those public officials who show a disposition to help along the good cause, and to compel those who do not show such a disposition to do so. The time is fast approaching when a community, its progress, enlightenment and degree of advancement will be judged by the condition of their roads, as an individual is judged by the same standard, by the condition and appearance of his home. And I believe that crude oil has solved the problem which will add strength and virility to our country, improve the tempers of our people, relieve much of the strain of labor from our beasts, add golden ducats to our little hoard, and settle once and for all time the crying evil of "bad roads."

#### Supplies Coming West.

The largest shipment of oil-well machinery ever sent West by a single firm is now en route to California. It consists of a trainload of machinery sent from Toledo, O., by the National Supply Company to its California branch houses, which are located in Los Angeles, Bakersfield, McKittrick and Coalinga. The machinery is valued at \$75,000, and the freight charges amount to over \$5000.

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Published Weekly

The Oil Authority of the Pacific Coast.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

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SATURDAY.....JUNE 13, 1903

All of the noted geologists who have examined this State for its possibilities in the way of oil territory have prophesied that California possessed marvelous resources in the line of oil production. The prediction has been made by the most competent scientists the United States government had at its command that our oil developments are yet in their infancy; that the fields of Kern and Fresno counties were but indications of the fields which were yet to be opened in other sections, some of which were being prospected for oil, and others were as yet unnoticed so far as there being any possibilities for oil were concerned.

These prophesies were made two years ago when the great discoveries had brought our oil fields prominently to the attention of the government. It would seem as if these new fields were being discovered even sooner than was to be expected.

Sunset field now threatens to be a greater producer than the Kern River field. Those who ought to know say the Midway field will soon produce more oil than Sunset. Others say the Coalinga field will surpass the best of the Kern county fields.

Santa Barbara county brought in a tremendous gusher last week near Santa Maria. The drillers at Sargents are confident they will soon get the most valuable well in the State, while in San Mateo, in Contra Costa, in Glenn,

Colusa, Marin and Mendocino the drills are steadily pounding their way downward.

If anyone thinks that oil consumers are at all fearful of a scarcity in their supply of oil they are greatly mistaken. If anyone at all is or ought to be scared it is the producer who may well ask himself the question, "Where and when is all this production to stop, and when will oil reach the dollar mark?" For a while it looked as if consumption would soon overtake production, but a dozen more wells like those struck last week in Santa Barbara county, and a few more big gushers in the Coalinga field will again put the production so far in advance of the consumption that oil will literally look like less than 30 cents. At present the only thing that keeps the price of oil up at all is

bituminous rock. The matter was supposed to be settled, until the discovery was made that the method of asking for the bids had been illegal. It was claimed the city authorities must first determine whether the streets should be paved with asphaltum or bituminous rock, and, this question decided, bids should be called for on one or another.

This being the case all bids that had been received were thrown out, and the matter must now be decided as to which class of pavement shall be used.

If the Fresno authorities are wise asphaltum will be the pavement to be used, and Fresno will have no more streets paved with the unsatisfactory bituminous rock.

Asphaltum pavement has been proved vastly superior to bituminous

## WILL BE REBUILT.

Plant of the Pacific Refining Co., to be Rebuilt.

The directors of the Pacific Refining Company have decided to rebuild the plant which was recently destroyed by fire. A meeting of the directors—C. S. Young, Tim Spellacy, Charles Lamb, Clarence Berry, H. A. Blodget, R. S. Knight and W. M. Spencer, was held last Monday for the purpose of taking steps in this direction. It is intimated that the new plant, which will be erected in close proximity to the Santa Fe depot, will be constructed so as to handle a much larger amount of the Kern county oil than did the former one.

## Important Decision.

Oil men are consulting attorneys throughout the Indiana oil field as to the result of the oil and gas decision of the supreme court at Indianapolis. The decision may result in the most sweeping reforms in the oil business of that State. The case was one where an attempt was made to grant perpetual rights to oil and gas, with a rental to be paid for the oil and gas produced, and a forfeit if no well should be sunk within a specified time. A well was sunk and then shut in or capped. The company's theory was that it had conformed to the requirements of the lease and could hold its lease. The original owner of the property claimed that when the company failed to develop the property it forfeited its lease. The court held that the lease was forfeited.

## Special Coalinga Edition.

The special Coalinga edition of the PACIFIC OIL REPORTER will be published July 4th.

This edition will be the finest oil paper ever issued.

It will contain a full description of every company operating in the Coalinga field, and photographs of every rig in the field will be reproduced by elegant half tone cuts.

Send in your orders now for advertising and extra copies.

## Oiling the Road.

Work on the Castroville road which has been in progress for some time past is nearing completion and yesterday hot crude oil was placed on the gravel. The work is being done under the supervision of Supervisor M. Hughes and after the oil is packed it will be one of the best roads in the county. Mr. Hughes' district extends as far as the Cooper line, but the work will be taken up by Jeff Mann.—Salinas Index.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## A Sample Letter

BOSTON, May 27th, 1903.

MR. W. B. WINN,

EDITOR, PACIFIC OIL REPORTER,  
San Francisco, Cal.

Dear Sir:—

The firm of A. H. Butler & Co., 20 Broad St., New York, have opened an office in Boston, under the writer's management. I have been employed by their company, and the Dabney Oil Co., for the past two years, and have had charge of several of their offices. In each case, I have always had your much valued paper, "THE PACIFIC OIL REPORTER" which I have always kept on file for information on the Pacific Coast industry, "Oil." I feel that I cannot do without it in my present location. Enclosed I hand you check for \$2.50, being amount of one year's subscription. Please send me all the back numbers from January to the present date, as I want this year's file complete for this office.

Yours very truly,

A. H. BUTLER & Co.,

By A. B. Curtis, Sec.

the lack of transportation facilities. The demand for oil is increasing much faster than the ability of the transportation companies to get it to market. But a lot of big wells near the sea, and a big fleet of tank steamers will soon get the oil to market, and cheaply too.

If this thing keeps on dollar oil will keep a long way off.

Much interest is being manifested in Fresno

Fresno Streets over the paving of a number of principal streets. The question is whether these streets shall be paved with bituminous rock or with asphaltum.

Bids were called for and the price for asphaltum pavement was found to be less than that for bi-

ous rock. In Visalia there are asphaltum streets laid nine years ago that are to-day in perfect condition, while the bituminous rock pavements have worn in a most unsatisfactory manner.

If asphaltum pavements are more satisfactory than those of bituminous rock in Visalia, they should certainly be preferred over rock pavements in Fresno, where the conditions are similar.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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## SOURCES OF ASPHALT.

Valuable and Interesting Paper by T. Hugh Boorman of New York.

The Process of Making a Satisfactory Asphalt Described and Explained, and the Result of Tests of California and Trinidad Asphalts.

Referring to the use of petroleum residuum as a fluxing material, residuum is a heavy dark oil, resembling the cheaper lubricating oils, and contains none of the lighter oils. Its gravity is from 20° to 22° Beaume, flash point about 450° Fahrenheit, quick flow at 78° Fahrenheit, and containing only a few per cent of volatile matter in seven hours at 400° Fahrenheit. In order to make a satisfactory asphalt cement (as the mixture of refined asphalt and residuum is called), it is customary to mix it in the proportion of about 100 parts of refined asphalt to twenty parts of residuum. The asphalt is first melted in tanks and the residuum is then added and thoroughly mixed by agitating with air or steam. As the quality of the residuum varies, it is not possible to gage the exact amount necessary by weight. Samples are therefore taken by the foreman in charge and tested by chewing. By practice a man can become expert in this line, but it is of course necessary to have a standard sample for comparison. At the laboratory and at the larger plants the consistency of the asphalt cement is tested by an apparatus called the penetration machine, and the consistency of the cement is recorded. Other methods for determining the consistency are also in use, and each has its merits. For quick service the chewing test is as accurate as any other, but there is no method of recording its results. The asphalt cement, which in the tanks is carried at a temperature of 300° to 350° Fahrenheit, is now ready for use, and is added to the hot sand and other mineral matter in a mixer which is simply a box enclosing two shafts revolving in opposite directions, on which are blades shaped like propeller blades. The mixture is generally made in batches of nine cubic feet, and the time of mixing is from a minute to a minute and a half. The resultant mixture is then dumped into wagons, hauled to the street, raked and rolled with a steam roller, and the asphalt pavement after a few hours cooling, is then ready for traffic.

In 1894 the Citizens Municipal Association and Trades League of Philadelphia employed Professor Samuel P. Sadtler and Mr. J. Edward Whitfield to investigate the properties of the different fluxing

materials and they reported that "better, stronger, and in all probability more durable paving composition can be made than those now being made with the aid of oil residuum." This decision was based on exhaustive tests of Trinidad with California and Utah Malthas. Their general deduction was that the blending of the asphalt and the oil residuum is an unsatisfactory one on the score of its lack of durability and have since found from conversation with practical men of many years' experience in asphalt paving that such is a common belief. It is also admitted by the chief writers on the subject of asphalt paving that the quality of an asphalt is reduced in the ratio of the percentage of increase of petroleum oil used. There are two methods as stated by Messrs. Sadtler and Whitfield by which the use of the petroleum residuum in asphalt paving mixtures can be done away with; one is to find natural asphalts which retain sufficient of their original asphaltic oils to make it possible to use them with no other admixture than the proper amounts of sand and pulverized limestone, the other is to mix with the hard natural asphalts, liquid natural asphalts, of which a number are found on the Pacific coast, and in Utah, Idaho, Montana and elsewhere in the West. The second method of making a paving composition which shall do away with the necessity for the use of the oil residuum is to flux the solid asphalt with the natural liquid asphalt. This has been done already in California with excellent results. As no figures had then been published by which one could judge of the reliability of these claims, it was determined to make a study of the paving compositions that could be made with the liquid asphalts used as tempering material for the solid asphalts. They therefore procured a quantity of California liquid asphalt and a specimen of liquid asphalt from Utah. In order to have a clear understanding of the nature of these materials and how their addition would effect the composition of the finished mixture, it was thought desirable to make a partial chemical analysis of them, determining the amount of bitumen contained and its quality.

These analyses showed: Cali-

fornia maltha 98.70 per cent of bitumen, and in the Utah 76.15 per cent of bitumen, both soluble in carbon disulphide.

California asphalts in forms of maltha brea, and stone or rock asphalt are found in abundance in the southern and southern central counties of the State. They were known to and used by the native Indians for making their canoes water-tight and in some measure as a mortar for cementing together the stones of their rude buildings, unconsciously following the practice of the Babylonians more than 4,000 years ago. As maltha, the bitumen oozes from orifices in the earth (called locally "tar springs"). As brea, this exuded maltha lies in blanket form, usually in thin masses but sometimes in deep bodies filling up holes, chasms and ravines. Under the action of the sun's heat the sort maltha has slowly thrown off its volatile elements, which with the action of the oxygen of the atmosphere has produced a more or less hard and brittle asphalt, more or less pure or mixed with earthy matter. As stone or rock asphalt it is found in many places in regular, true fissure vein formation of very old geological age, the volatiles nearly eliminated from gases and from the rocks and earth surrounding and covering it. The maltha, as issuing from the tar springs is usually very pure in bitumen. The brea is less pure and very variable, according as it gathered much or little sand, gravel or soil in its progress of crawling under the sun's heat. The rock asphalts are also widely variable in bituminous purity, according to amount of earthy or fossil matter intruding into the bitumen while still viscous or even at its earlier stage of fluidity on its way up and through the earth fissures. In one or other of these forms these asphalts have been in use in increasing quantities since the advent of Americans in California, most largely for roofing, next for paving and for lining reservoirs and tanks, and to a large extent for coating water pipe and protecting it from rust, acids and alkalies. For paving, the rock asphalt has been quite largely used in the Pacific Ocean States and Territories, but paving material made from refined maltha is now being more largely employed owing to the very high purity of the bitumen, enabling shipment to far distant points with virtually no dead matter in its composition to pay freight and handling on. The following analysis of a common type of these refined malthas will illustrate this.

REFINED MALTHA PAVING CEMENT.	
Water and volatiles.....	.09%
Loss at 212° Fahrenheit:	
Total bitumen.....	98.33%
Ash (finely divided silicium).....	1.58%
	100.00%
Bitumen composed of petroleum.....	75.15%
.....24.85% Bitumen composed of asphaltene..	
Specific gravity of the cement, 1.050	

Considerable quantities and of rapid annual increase have been shipped to states east of the Rocky mountains, shipments via Panama and Cape Horn to Europe are increasing, and an active trade is beginning with Asiatic Pacific countries. A recent shipment of some 500 tons on account of a 5,000 ton order has been made to Australia. Several thousand tons are used annually for coating wharf piles which the asphalt effectually protects against Tere-dos and Limnoriae. Some ten years ago a civil engineer (Mr. Tembler Tickell) in employ of the British government at Singapore shipped a quantity of refined asphalt from California and applied it upon the timbers of bridges and buildings to test its efficacy in resisting the depredations of the wood-eating ants, which range in great armies through the straits settlement and attack everything of wood, completely consuming heavy timbers. The asphalt resisted them perfectly. Applied to metal surfaces which in very hot and very humid climate of Polynesia corrode to an extent unknown in cooler and dryer climates, Mr. Tickell found the California asphalts a perfect protection. The use of California asphalt for street pavements in Eastern cities is growing rapidly. Samples of California asphalts recently submitted to Professor A. W. Dow by a Western Asphalt company, resulted in the following analysis and report:

	(D) Hard Bitumen.	(G) Maltha.
Total bitumen soluble in carbon disulphide.....	99.10%	99.67%
Organic matter not bitumen.....	0.54%	0.12%
Silica and clay.....	0.36%	0.20%
	100.00%	100.00%

"None of the samples were appreciably altered by being kept at 300° for six hours in an open vessel. This paving cement is of the right consistency to make a good paving. It is adhesive and elastic. It is not brittle at a low temperature, nor does it become too soft at a high atmospheric temperature. These samples are superior to any I have ever examined in physical properties, and rank among the better asphalts for paving purposes. Your (D) asphalt paving cement, by combining with your (G) liquid asphalt will produce a most splendid article."

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

A. H. Stacey, manager of the North-west Oil and Coal company, has been in San Francisco, but left for Alaska this week where his company is now actively engaged in drilling wells at Kayak. The company brought in a big flowing well last year at 350 feet. This year the company has four rigs at work, and has so arranged its derricks, houses, etc., that drilling will be prosecuted continuously through the year. The company is an English concern, and is backed by abundant capital. The oil is very valuable for refining, and has a paraffine base. The company has just purchased over \$15,000 worth of drilling machinery from the San Francisco branch of the R. H. Herron company, and it is now on its way to Alaska.

### COALINGA.

At a meeting of the directors of the Blue Diamond Oil company, whose office is in Grass Valley, it was decided to resume operations by the first week in July on their property on section 26, 20-14.

The Fauna Oil company is still industriously drilling on its well after having passed the 1,600 foot mark. It is in 9 3/4 inch casing and has an amply large hole to continue down to any necessary depth for a strike.

Messrs. Tim Spellacy and Chas. Canfield, the oil magnates, spent last Friday in the field. Mr. Canfield is resuming operations in this field after a lapse of many years and will begin drilling at once on section 34.

The Rhode Island California Oil company, after reaching a depth of nearly 1,900 feet, ceased operations some months ago on its location in section 20, 20-16, but expects to resume work on section 24, 19-15, in the near future.

Twenty-eight Oil company brought in another good well the past week, this one being No. 7. Drilling on No. 8 has been begun, and the derrick for No. 9 is up. The company expects to continue drilling new wells for an indefinite period.

Canfield & Kerr are rigging up for well No. 1 on section 34, 19-15. Should they meet with success in getting a good strike they will continue operations indefinitely and get sufficient production to warrant the laying of a pipeline to Ora station.

The Independence Oil company began drilling on its No. 8 well this week to be pushed uninterruptedly until its completion. This well is to take the place of old No. 8, which had to be abandoned on account of the tools being lost in the hole and buried in the sand.

The Wabash Oil company have gotten into the first oil sand at the comparatively shallow depth of 650 feet, and although the company has every indication of getting a good well, it has been decided to continue the hole to the second sand, where a lighter gravity oil is expected.

The Connecticut-California Oil company, which began drilling on March 20th, has reached a depth of over 1,200 feet, and it expects to continue drilling until it strikes oil. Although this company is several miles from any producing well, indications thus far appear decidedly favorable.

R. J. King, manager of the Esperanza Oil company, is having the casing pulled out of the Waverly Oil com-

pany's well, which is located twelve miles south of Coalinga, and which company ceased operations a little over two years ago after going to a depth of 1,200 feet without getting any indications of oil.

A boiler explosion of a peculiar nature occurred last week on the plant of the Coalinga Oil company at Oil City. Fully one hour after the fire had been extinguished and the men stopped work for the day the explosion occurred, completely demolishing the boiler and the shed in which it was located. Since the men had stopped work no one was injured, and the explosion remains an unsolved mystery.

The editor of the PACIFIC OIL REPORTER, Mr. W. B. Winn, was in town in the interest of the Coalinga special edition of this paper, which will appear on July 4th. This edition will comprise nearly fifty pages, devoted almost wholly to this field, and will give at least fifty views of the rigs of the various operating companies, together with panoramic and group views of the entire field. It will be the only complete and accurate presentation of the present conditions of the field.

Present indications of the work of the Union Oil company in this field point to extensive operations to be carried on from now on. The company owns some excellent proven oil territory in the southwestern district of the field which they have either purchased outright or leased as follows: SE. 1/4 and S. 1/2 of the N. 1/2 of 24, 24-14; the S. 1/2 of the N. 1/2 of 13, 20-14; and the NE. 1/4 of 12, 20-14, excluding twenty acres. The company is now drilling two wells, one each on 24 and 13, both of these wells proving large areas of new territory for the deeper sand, and their success will determine the extent of the Union Oil company's operations in this field.

The increased activities in drilling are not wholly confined to the Coalinga district properly speaking. Within the past two weeks two companies, one five miles away and the other nine miles away from any development work, have resumed operations. The former is the Mt. Hamilton at Alcalde, the latter the Echo Oil company, located on 29, 20-13, which has been laying idle for five months after going to a depth of 1,300 feet, getting splendid indications of a high gravity oil. In fact this company penetrated a sand that would have easily produced ten barrels per day, but they are after the main sand, which they expect to strike within the next 400 or 500 feet.

### FULLERTON.

Thirty-one wells are now being drilled in the Fullerton oil fields and three rigs are in course of construction.

Well No. 39, recently brought in by the Santa Fe is now throwing 35-gravity oil over the derrick two or three times daily.

### GLENN.

The Arbuckle Independent says: "The Willows Board of Trade has requested the Glenn county supervisors to assist Mrs. Jenkins to develop oil in Glenn county."

### KERN.

The New York Pacific has commenced work at Sunset.

There is every indication of a big well for the Grand Oil company in Sunset.

The California-Sedalia Oil company

started work on another well on Monday last.

The York Syndicate at Kern River has just perforated its second well and is now pumping with good results.

The Alameda Oil company at Sunset has just finished the work on No. 6. Work on the seventh well is still in progress.

The Altoona Midway company has secured twenty acres more of land, making forty in all, of as good oil land as there is in the Midway district.

O. S. Hickey expects to have the rig for drilling well No. 2 for the Charter Oil company finished by Monday night and to commence drilling by Tuesday.

The warehouse, barreling shed, and loading rack of the Pacific Refining company were destroyed by fire last Thursday morning. The loss involved was fully \$7,000. The refinery will be rebuilt at once.

Since the first of the month the following Kern county companies have paid dividends: The San Joaquin, 35 cents; Peerless, 14 cents; Pittsburg, 25 cents; Alma, 3 cents; Imperial 20 cents; Thirty-three, 10 cents.

The two Fulton wells at Sunset are showing up well, and the sand is very rich and deep. The casing is now being driven through the sand and will be landed in the clay. The wells will be great producers, and will be about 800 feet deep. No. 3 is down over 600 feet.

The Monarch Oil company has finished its new reservoir of 75,000 barrels capacity and is now putting on the roof. This company is pumping two wells, the second having just been perforated a few days ago. The lumber is now on hand for erecting the rig for the third well.

The stills for the new refinery about to be erected at Maricopa in the Sunset field are now on hand and the work is expected to be carried through shortly. The capacity, it is said, will be 600 barrels. There are now two refineries in operation at Sunset, the Navajo, and Jewett & Blodgett's.

The Famosa Oil company, located on 4, 28-28 at Kern River, is now cleaning out the four wells on its property preparatory to resuming work of pumping and shipping oil. The company has done practically nothing on its property for the last year, although its wells have been completed for a long time.

A blowout occurred last Thursday at well No. 2 of the California-Kern Oil company on 8, 29-28, caused by the drill penetrating a gas pocket at a depth of 630 feet. The tools were completely

blown out of the well, the crown block and timbers blown away and a torrent of sand shot up in the air over the top of the derrick. Oil has not been struck yet.

A. B. Canfield and G. E. Whitaker struck oil a few days ago in the first well on their property five miles west of McKittrick. The oil was struck at a depth of about 900 feet and is said to be satisfactory, both in quality and quantity. The well is on 11, 30-22 and outside of the main proven oil belt. It is owned by Canfield & Whitaker and is not in any corporation.

Several wells in the Kern River field have experienced trouble recently through the collapse of the casing. The Associated No. 10, on the Green & Whittier property, is now being redrilled, the former casing having collapsed. The Monte Cristo No. 42 is also being redrilled, the same trouble being had. The Mercedes has just finished redrilling one of its wells in which the casing collapsed. The well is proving a success.

In the Midway field and in the north-western portion of the field are some of the biggest wells in the district. These are owned by Chanslor & Canfield, who have expended over \$50,000 in bringing in a water supply and in proving up the sections they own. On these sections are some of the greatest wells in the State. They are kept capped, and their full production is not known, though it is estimated to be over 300 barrels to the well at least. Chanslor & Canfield have had surveys made for a pipe-line to the coast, a distance of only seventy-eight miles. The line will run from McKittrick through the Midway. It will be built when the demand for oil makes the development of this portion of the field a paying proposition.

A movement is on foot, says the Californian, to secure an extension of the Sunset railroad for a distance of about two and a half miles into the heart of the oil fields by which it will reach the greater part of the producing belt. The route is from Pioneer to Maricopa, where a refinery is to be erected for the Wichita and the California Consolidated Oil companies. John D. Spreckles and Messrs. Mattson and Crocker of San Francisco, the second of the Pacific Transportation company, and the third of the Crocker-Woolworth bank, who are interested in the Monarch Oil company, have interested themselves, together with other oil men of the district, and are said to have secured definite assurances that the road will be built in a very short time. The pro-



WE BUY, SELL, and LEASE proven oil land; drill wells; buy, bond and lease, incorporate and finance oil and mining companies, and act as Trustee and Fiscal Agent.

We sell stock to develop oil and mining companies, also dividend paying stock. We hold as Trustee for oil and mining corporations almost 2,000,000 shares of their capital stock in a TRUST FUND. If any company fails, we, as Trustee, take up its stock and issue to its stockholders stock of the successful companies from the Trust Fund. Thus a buyer of stock of any company has an interest in a number of developing oil and mining properties. Stockholders have a pro rata interest in the enormous Trust Fund created for their protection. As Trustee and Fiscal Agent we control the Trust Fund absolutely that guarantees protection to stockholders in each individual company.

Maps, charts, printed matter, sent on request. Correspondence solicited. Mention this paper.



posed line will reach the properties of the Fulton, Maricopa, Lion, Tiger, Sunset Center, California Fortune, Monarch, Del Rey, T. & P., Superior, United Crude, Stratton, and many other companies. It will give the Sunset field the shipping facilities that the Kern River field has had for many years, and furnish transportation direct from the various wells. The oil men say that this is one of the great needs of the field which has been hitherto handicapped by the lack of it.

The talk about the Associated Oil company continues unabated. There are rumors flying through the air as big and as keen as razors. None of them are correct either as to the sale of the Associated to the Standard or the railroad or the transfer of any of its properties. These are owned by the Associated, and the latter will not part with any of them much less all. The officers of the company seem to be minding their own business, and probably wish the newspapers would either let them entirely alone or else print the correct news. The directors are saying nothing, but are quietly buying up all the stock of the individual companies associated in the company as fast as possible; in fact this stock is hard to get, and is increasing in price daily. This is the case in all the companies with the Combine. The Associated shipped last month an average of over 15,000 barrels a day, or

pany's holding, where the gusher was struck last Monday. The deed is in the name of Arthur Alexander, as trustee. Associated with him are R. C. Rogers, J. C. Cunningham, L. G. Dreyfus and A. H. McKay, John Barneson and W. G. Giddell.

#### MENDOCINO.

Small quantities of a very fine grade of oil were obtained from the Ukiah well at a depth of only three or four hundred feet. In the face of such encouragement the well was not put down to a sufficient depth to prove its worth or to ascertain the source of the oil which was secured. Either through carelessness or design, the work made slow progress and was finally abandoned before the hole was deep enough to know anything about it. Two local companies have within the last ten days announced their intention of thoroughly prospecting the Ukiah field. The Ukiah Oil Development company, under the management of an entirely new set of directors and with a new superintendent in charge of the work, will immediately resume work upon their property and say that they will drill to a sufficient depth to establish the character of the formation once for all. The Russian River Oil & Development company have let a contract for a fifteen hundred foot hole on the old Gibson property west of town. This well is to be put down within the next ninety days.

ters are at present at a standstill, and it is not expected that work will be resumed until about the first of September, when it is confidently expected that the work of refining asphalt will be resumed with great activity. Major R. E. Falkenberg, the manager and president of the company has been very ill for the last three months, and during his enforced absence the board of directors decided to discontinue active operations.

#### SANTA MARIA.

Well No. 3 of the Pinal Oil company broke loose last Friday night. The flow continued from 3:40 to 4:57 P. M., and during this whole time an eight-inch stream of oil was shot to the top of the derrick, eighty-five feet, and a large part of the time it shot fifty feet above the derrick. In order to prevent the waste of such a quantity of oil a force of men with teams was quickly put to work, and in a short time a huge dam had been constructed. The extent of the flow can be realized when it is known that a horse, being guided too close to the brink, lost its footing and fell into the immense pool. It floundered, and with difficulty was rescued from its unusual bath. Since Friday, the well has been spouting at intervals. It is not desired to stop these periodical geysers, as each explosion increases the capacity of the well by loosening the formation. When it is considered advisable the well will be

flows it enlarges the cavity in the sand at the bottom and large quantities of sand and gravel come up with the oil. Each flow lasts until the oil in this reservoir is exhausted and another flow will not occur until the reservoir is full again. The flow that occurred Friday evening, mention of which was made in yesterday morning's paper, was witnessed by a large number among whom were the following: Patrick Moore, 6f Arroyo Grande; B. Sinsheimer, John Barneberg, D. D. Barnard, A. Tognazzini, E. W. Clark, of San Luis Obispo; M. Fleisher and Paul Tietzen of Santa Maria. The oil covered the ground for sixty feet around the derrick and several dams were constructed in the ravine which received the flow. This ravine is ten or twelve feet deep and no wider than it is deep and has considerable fall. When it was seen that the last dam completed would not hold the flow all hands pitched in and worked like beavers to build a new dam. It is not desired to stop this periodical spouting of the well for the present as it increases its capacity by loosening up the formation. When it is considered advisable the well will be brought under control and pumped in the regular way.

#### SARGENTS.

The drillers on Colonel Beane's well at Sargent thought they had struck a gusher a few days since, and so they did, of water. At a depth of 600 feet the came on a splendid artesian flow. This will delay the work of drilling until the water is shut off.—Advocate.

#### SOLANO.

Much gas is coming from the well of the Rochester Oil company near Suisun, and the company is talking of piping the gas to Suisun and Vacaville. The flow of gas is enormous.

#### WYOMING.

The Hoosier Oil and Mining company, which has been operating extensively in Grant county, Indiana, oil fields and in the ore mines of the West, proposes to sink a number of wells for oil in Wyoming. The test will be made near Garland, Wyo., in the Big Horn country.

### 10,000,000 Barrels

Another fake yarn is going the rounds about a contract just made with some one by some one, presumably the Southern Pacific or the Santa Fe, no one knows which apparently, to the effect that one of these companies has made a contract to purchase 10,000,000 barrels of oil to be delivered at the rate of 40,000 barrels a month at Bakersfield at the rate of 25 cents f. o. b.

None of the big concerns that could contract for oil in this amount know anything about it, and all are agreed that no one or no company could make a contract at any such price.

The yarn is on a par with the story that Harriman has bought a controlling interest in the Associated.

There is certainly need of a fool-killer among those who gather news for the press.



Plant of Pacific Refining Co., at Bakersfield, recently almost destroyed by fire, will be rebuilt.

a total for the month of over 450,000 barrels, which is 125,000 barrels more than ordinary. The shipments will soon reach 20,000 barrels a day, as the demand for oil is growing constantly. The reservoir in the Kern River field will be completed next week, and will soon be full of oil. It will hold 430,000 barrels. The McKittrick reservoir will be finished in twenty days and will hold 250,000 barrels. The company is running five rigs. The company some time ago started in to buy oil hoping that by so doing the price of oil might be helped a bit. The contrary effect was the result as the companies round about thought there was a shortage and immediately started in putting down more wells. The increase in wells meant increase in production and that meant cheaper oil. The Associated will buy no more oil. If it needs oil it can get plenty of it from its own land and from its own wells.

#### LOMPOC.

They are still boring for oil on the Santa Nita rancho at the same place where the derrick was set more than one year ago.

The Union Oil company has shut off the vein of water struck in well No. 2 and are now making rapid progress in drilling operations.

An important real estate deal has been consummated by which a 950-acre tract of land adjoining the Western Union company's property near Los Alamos passed into the possession of a company which proposes to develop oil. The tract is just east of the Pinal com-

#### NEWHALL.

The Pearl Oil company is now putting in machinery for drilling the third well.

The Santa Ana is pumping, and others will soon start, among them the San Miguel and Enterprise companies.

Many of the independent companies are resuming work. The St. Bernard and Lowesby Oil companies are drilling.

The oil fields in the vicinity of Newhall are reported taking on new life after a long period of cessation and depression.

The Standard Oil company has again resumed the pumping of all its wells, and has started a drilling crew and now is erecting a 35,000-barrel steel storage tank.

The Pearl company is the only independent company that kept up continuous development during the entire time of the dull season, and this was largely owing to the efforts of its manager, H. Clay Newham, who has long been identified with this field. The Pearl owns some exceptionally promising territory, and with two wells on the pumps and a third under way its future appears flattering.

#### SANTA CLARA.

The annual meeting of the Standard Rock Oil Co. was held two weeks ago and Dr. C. T. Deane of the California Petroleum Miners Association was elected director and vice-president. The books of the company were examined and found satisfactory. Development mat-

brought under control and pumped in the regular way.

The San Luis Obispo Tribune says: "Pinal oil stock is away in the air and nobody wants to sell or put price lower than the fabulous on their stock. Down at Santa Maria where the fever of the new strike is most intense, people who have shares in the Pinal company would probably be afraid to offer it at ten or fifteen dollars a share for fear they would lose it. At San Luis Obispo five dollars a share would probably be refused. A number of San Luis Obispoans who have been at the Pinal well returned yesterday afternoon and they say the flow of the Pinal well No. 3 is something immense. E. W. Clark in speaking of this well said that it was the grandest sight he ever saw. He says the oil shot fully forty feet above the eighty-foot derrick and would have gone much higher but for striking the platform at the time. Every time the well



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## AN EXCELLENT SHOWING.

### Good Results Accomplished Through the California Petroleum Miners' Association.

Board of Directors Appointed for the Ensuing Year.

The Annual Report of the Association's Secretary, Dr. C. T. Deane, is Encouraging.

The annual meeting of the California Petroleum Miners' Association was held on Tuesday, June 2nd. The following gentlemen were elected directors for the ensuing year: M. H. de Young, Henry J. Crocker, G. X. Wendling, E. P. Heald, Wesley A. Jacobs, E. A. Denicke, John M. Wright, T. Spellacy, Jos. A. Cans'or, George H. Ismon and Dr. C. T. Deane.

These gentlemen are all leaders in the oil industry of California and under their leadership the California Petroleum Miners' Association will continue to accomplish great good for the oil industry.

Following is the annual report of the Secretary, Dr. C. T. Deane:

#### THE ANNUAL REPORT.

To the Members of the California Petroleum Miners' Association.

GENTLEMEN: At this the end of the third year of the California Petroleum Miners' Association it might be well to take a rapid view of what the association has done to justify its further existence. At the time of its incorporation in 1900 the oil situation was what might be called "boom". Oil territory was everywhere, the State was full of oil fakers, and everyone was supposed to be able to drill a hole and find oil. The number of oil incorporations ran up into the thousands and I believe there was not a single county in the State where oil was not in evidence. The crop of experts was on every corner learnedly discussing miocene, pliocene, tertiary and all other formations, every man, woman and child you met owned a certificate of stock. Like all boom movements the time had to come when the great majority of these certificates proved worthless and then the pendulum swung back to the other side and the thousands who had believed everything that was told them now believed nothing. Values went down and lands which were really worth thousands could not be sold for hundreds. During the boom time contracts for oil were readily made for 80 and 90 cents a barrel at the well, but the production was so great, the consumption so small, that the price dropped to 10 cents in some localities. People seemed to forget that it took time to adjust conditions with the adoption of a new fuel; furnaces had to be changed, tanks to be built, and even to-day, after three years' preparation, the

railroads are not yet ready to use oil on all their mileage.

The necessity of having a central bureau or head to the whole industry has been thoroughly demonstrated by the hundreds of letters received by this association from all parts of the world making inquiries, and it has been the effort of the executive department to place the association on a high plane, above the suspicion of any officer using it for his own benefit or for private ends. I believe that all interests to-day are so satisfied. The navy department has been for the past year making careful experiments as to the use of oil and we feel that we were largely instrumental in starting this work.

We have been in constant correspondence with Admiral Melville and Commander Edwards, President of the "Liquid Fuel Board" on this subject. We found great difficulty in getting California oil to Washington owing to lack of tank cars, but by constant effort, finally succeeded and we know that this association is thoroughly appreciated there. The department sent for fifty copies of bulletin No. 2 of this association as to burning oil on steamships. The association has published three bulletins so far and we are preparing another, No. 4, which will appear shortly. Those bulletins have been republished in Europe and have been translated into French, Russian and German.

The consuls of almost all nations have applied to the office of the association for copies, to send to their governments, and the bulletins are looked upon as almost official in their utterances.

Your secretary visited Sacramento during the session of the legislature and was largely instrumental in having passed a joint resolution to the Judiciary committee of the United States Senate, condemning the bill which had passed the house of representatives, giving a new stimulus to the scrippers' efforts to steal a large amount of our most valuable oil lands, and I desire here to offer the thanks of the association to Senators Belshaw and Ralston for the assistance given your secretary in passing the joint resolution. The association also desires to thank United States Senator George C. Perkins for his good work in Washington, in explaining to the members of the judiciary committee the real animus of the scripper bill. The bill was killed

in committee; since then the supreme court has rendered a decision, finally, we hope, putting a quietus on any further efforts of the land sharks. We feel that the California Petroleum Miners' Association has been largely instrumental in bringing about this favorable action both with the honorable commissioner of the land office and the secretary of the interior.

There is a great deal of work ahead this year in preparing an exhibit of the oil resources of California at the St. Louis exposition. We should make a showing of which the State will be proud, and if the means are furnished we promise to do so.

We have in the office of the association an envelope index of all the oil companies in the State, with their lands and improvements, also maps of all districts with oil belts designated and values of lands; all these are open to the public without cost, indeed all information is furnished to the public gratis.

The magnitude of the oil interests of California can be estimated when we look back only a few years and see how rapidly oil as a fuel is taking the place of coal. In 1900 we used 4,000,000 barrels, 1901, 8,000,000 barrels, 1902 over 13,000,000 barrels and in 1903 fully 20,000,000 barrels will be used. I firmly believe that in

1905 we will be using 50,000,000 barrels.

To say there is no place for such an association as ours is simply ridiculous; the California Petroleum Miners' Association is just as necessary to represent the oil interests, as the Board of Trade and the Merchants' Association are to San Francisco's business interests. We certainly recognize the fact, that perhaps there are a few people who do not want us, but all square dealing companies, who have nothing to conceal, welcome this association and recognize us by pecuniary aid and assistance in giving us facts and figures.

This association as you are aware is supported by voluntary contributions from the oil companies and largely from the mercantile community of San Francisco; every cent is spent for the good of the cause, your secretary even receiving no salary.

The future of the industry looks very bright, oil lands have trebled in value during the past year, and if the owners of wells will only not try to force their product on the market, they will get a very much higher price before the end of this year than they are now getting.

C. T. DEANE.  
Secretary.

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**GOVERNMENT REPORT.**

**Wyoming Fields Favorably Regarded by the U. S. Government.**

The last published report of the United States Geological Survey, published in September, 1902, thus speaks of the possibilities of the oil fields of Wyoming:

"There has been unusual activity during 1901 in all of the petroleum fields in Wyoming, which was no doubt stimulated by the remarkable discovery of new fields of petroleum in Texas and California.

"The one particular event that seemed to create renewed interest was the finding, at a depth of 650 feet, of a remarkably pure petroleum, with a paraffine base, in a well located in Uinta county, section 27, township 15 north, range 118 west, drilled for water by the Union Pacific railroad at Spring valley in the early part of 1901. The production, however, was small, but the quality was all that could be desired, yielding by weight 17.1 per cent gasoline and naphtha, 33.4 per cent illuminating petroleum, 27.1 per cent heavy illuminating and headlight petroleum, 20.4 per cent of lubricating petroleum and paraffine, and leaving but 2 per cent for carbon and loss. The specific gravity was .81, equal to 43° Baume.

"During 1901 nearly all the available petroleum lands have

been located, and probably a much larger area covered than will ever prove to be productive of petroleum in marketable quantities.

"This statement should, however, be explained, for in Wyoming, as in nearly all of the Western States, nearly all of the petroleum fields are upon government lands, and, although the existence of oil has been known for over half a century, there are not over 5,000 to 6,000 acres of patented oil lands in the State at present, the greater part of these lands being held under placer claims, prescribed by the United States mining laws.

"The General Land Office has taken important action with reference to the development of petroleum production in Wyoming, and has withdrawn from agricultural entry a large tract of land on the basis of reports which have just been made to the office by expert special agents relative to the finding of oil thereon in commercial quantities. Under the land laws of the United States, lands known to contain petroleum or minerals of any kind can not be taken on an agricultural entry, but lands entered in good faith for agricultural purposes upon which petroleum is subsequently found may, nevertheless, be retained by those who have entered them."

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

**Oil in Victoria.**

Clear, light brown oil that will burn in a lamp has been brought to Vancouver, B. C. by J. B. Ferguson from East Kootenay. He skimmed it off the surface of a pool in the immediate vicinity in which he located eight square miles more. Mr. Ferguson says that the property is located north of the Elk river. The district located by Mr. Ferguson is really oil rock rather than oil lands, and from this mountain of rock there is a continual oil seepage. This rock smells the same as any other rock until it is struck, one piece against another, causing an abasion of the surface, then the odor of the oil is very distinct.

**Wyoming Oil Companies.**

We can furnish you nice folders with the map of Uinta county oil fields on one side, and on the other whatever advertising matter you may desire.

We have half-tone cuts of the field which can be used in the folder free of charge. On the map your property will be shown in colors.

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**Oil in Missouri.**

A number of companies have been organized in the northern and western parts of the state for the purpose of prospecting for oil. As a result of these organizations a number of deep wells have been bored, few of which have given any evidence of oil or gas in commercial quantities. At Belton, near the Missouri-Kansas boundary, there are several wells which are producing a few barrels of oil a day. Outside of these, according to the report of the state geologist, none of the wells are of commercial importance.

**Will Burn Oil.**

The Press shingle mill at Bucksport, one of the finest plants of its kind in Humboldt county, is being equipped with an oil-burning apparatus. The object is to maintain steam for the dryers when the main boilers are closed down. Crude oil applied by the Wilgus burner will be used, the attempt being the first of the kind ever made in the county.

**The Rosecrans.**

The tank steamer Rosecrans, belonging to the Pacific Oil & Transportation company, left last week for St. Michael, Alaska, with 23,000 barrels of oil for use on the Yukon. She will return and take a second load as soon as possible.

. . . . . THE PACIFIC OIL REPORTER . . . . .  
HAS ESTABLISHED AN AGENCY FOR THE

**PURCHASE AND SALE OF**

# PROVEN OIL LAND

On account of the very many inquiries made upon us from parties wishing to have us aid them in different capacities in regard to buying or selling oil land, located in the different oil districts, the publisher of the PACIFIC OIL REPORTER has been compelled to establish a department where parties wishing to buy or sell oil land can have their inquiries answered and proper attention given to the requirements of an oil land selling agency.

No one need apply to this department for any aid in the sale of land unless said land is located in the proven oil belt, and unless the land offered for sale can show a clear title. The same conditions will be required for lands offered on lease.

In regard to purchasing land we wish to deal only with principles, and have no time to waste on "agents" who first hunt up a proposition and then "hustle" for buyers.

Parties wishing to invest in small or large holdings of good oil land can choose among choice pieces in several fields. We have now on hand a choice tract which has on it a good producing oil, and is surrounded by producing properties.

We will sell land and will assist in the organization of oil companies, seeing that they are started on the right track, and placed in a condition where they can go ahead and develop their properties successfully.

This department will have nothing to do with wildcat propositions or with companies that are over-capitalized or are organized simply to sell stock.

## WE DEAL ONLY WITH PROVEN TERRITORY

If you have Oil Lands for Sale list it with us as soon as possible.

If you are thinking of investing in Good Oil Land and do not wish to get "Stuck" on worthless and high-priced land inquire of us.

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**In Alabama.**

The Birmingham, Alabama, Consolidated Oil Exchange has been formed for the purpose of seeking oil in Morgan and other north Alabama counties. Among those interested are Judge George B. McClain of Pennsylvania, General C. M. Shelly of Alabama, Judge T. C. Jones of Montgomery, Ala., and T. R. Roulhac of Sheffield, Ala., the United States district attorney for the northern district of Alabama.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, June 10th:

**CARIBOU.**

600 at 90..... \$ 540 00

**FOUR.**

500 at 72..... 360 00

**HANFORD.**

1 at 118 00..... 118 00

**HOME OIL.**

30 at 2 60..... 78 00

100 at 2 65..... 265 00

510 at 1 75..... 1,402 50

4,850 at 2 80..... 13,580 00

500 at 2 80 (S 90)..... 1,400 00

850 at 2 85..... 2,422 50

100 at 2 85 (S 90)..... 285 00

1,200 at 2 90..... 3,480 00

100 at 2 90 (B 90)..... 290 00

30 at 2 95..... 88 50

200 at 3 00 (B 90)..... 600 00

300 at 3 10 (S 90)..... 930 00

**INDEPENDENCE.**

12,600 at 17..... 2,142 00

3,000 at 18 (S 30)..... 540 00

**KERN.**

600 at 5 00..... 3,600 00

50 at 6 00 (C)..... 300 00

50 at 6 12 1/2..... 306 25

**LION.**

4,600 at 06..... 276 00

**MONARCH.**

4,885 at 57..... 2,784 45

**MONTE CRISTO.**

100 at 1 10..... 110 00

**OCCIDENTAL OIL.**

4,500 at 21..... 945 00

300 at 22..... 56 00

**OIL CITY PETROLEUM.**

2,750 at 34..... 935 20

2,500 at 33..... 825 00

**PEERLESS.**

20 at 14 50..... 290 00

40 at 15 00..... 600 00

**PITTSBURG OIL.**

98 at 40..... 39 20

**REED CRUDE.**

2,520 at 40..... 1,008 00

**SAN JOAQUIN.**

1 at 6 00..... 6 00

110 at 6 50..... 715 00

**SOVEREIGN.**

805 at 41..... 330 05

**STERLING.**

200 at 3 05..... 610 00

**TWENTY-EIGHT.**

100 at 4 15 (S 90)..... 415 00

100 at 4 20 (S 90)..... 420 00

100 at 4 25 (B 60)..... 425 00

200 at 4 20..... 840 00

50,100 Shares, Amount, \$44,367.65

**ALASKA PACKFRS.**

5 at 155 00..... 775 00

**AMERICAN BISCUIT CO.**

10 at 90 00..... 900 00

**CALIFORNIA SUPPLY CO.**

20 at 22 50..... 450 00

**FISHER R. THEATRE CO.**

100 at 2 25..... 225 00

200 at 2 50..... 500 00

**NORTHERN CAL. POWER CO.**

100 at 9 75..... 975 00

435 Shares, Amount \$3,825.00

**UNITED R. R. BONDS (4's).**

1,000 at 79 3/4..... 7,975 00

1,000 Shares, Amount \$7,975.00

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	.....
Apollo.....	.40	.....
Asso. Oil Co Stk. Tr.		
Certificates.....	.21	.25
Aztec.....	.80	.90
Bear Flag.....	.06	.....
California Standard...	.13	.....
Caribou.....	.90	.95
Central Point Con.....	.75	.85
Chicago Crude.....	.20	.24
Clairemont.....	.....	.35
Esperanza.....	.80	.....
Fauna.....	.05	.....
Four.....	.70	.72
Fulton.....	2.90	.....
Giant.....	.20	.....
Hanford.....	.....	1.20
Home.....	2.80	2.90
Homestake.....	.....	5.00
Imperial.....	.....	19.00
Independence.....	.17	.19
Junction.....	.21	.....
Kern.....	5.00	6.00
Kern River.....	.....	15.00
Lion.....	.06	.07
Monarch of Arizona...	.57	.....
Maricopa.....	.10	.....
McKittrick.....	.12	.....
Monte Cristo.....	1.00	.....
Nevada.....	.....	.50
Occidental of West Va	.21	.22
Oil City Petroleum.....	.32	.33
Peerless.....	14.00	.....
Petroleum Center.....	.....	.05
Pittsburg.....	.45	.48
Piedmont.....	.06	.....
Reed Crude.....	.39	.40
S. F. & McKittrick.....	2.50	.....
San Joaquin O. & D.....	.....	7.00
Senator.....	.70	.75
Shamrock.....	.24	.33
Sovereign.....	.40	.43
Sterling.....	3.05	.....
Superior.....	.04	.10
Thirty-three.....	8.00	9.00
Toltec.....	.18	.....
Twenty-eight.....	40.0	4.50
Union.....	.....	64.00
United Petroleum.....	.....	118.00
West Shore.....	.....	3.50
Western Petroleum.....	.....	.18
Wolverine.....	.....	.57

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**9:30** A. M.—\*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**9:30** A. M.—\*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**4:00** P. M.—\*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

**8:00** P. M.—\*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\* Daily      2 Mondays and Thursdays  
                 2 Tuesdays and Fridays.

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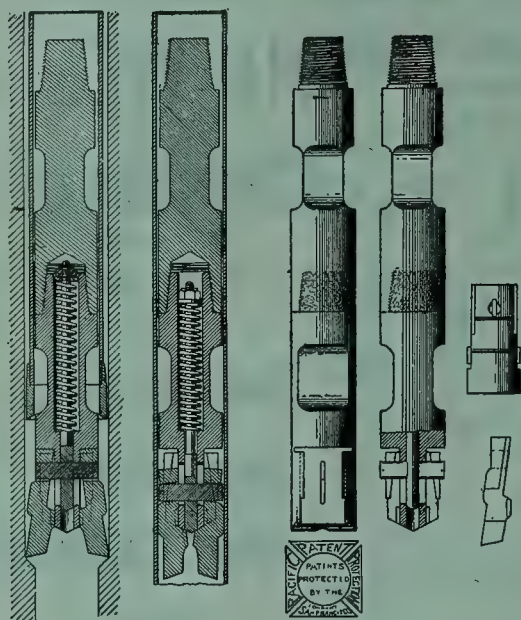
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 33.

SAN FRANCISCO, CAL., SATURDAY, JUNE 20, 1903.

Price 10 Cents.

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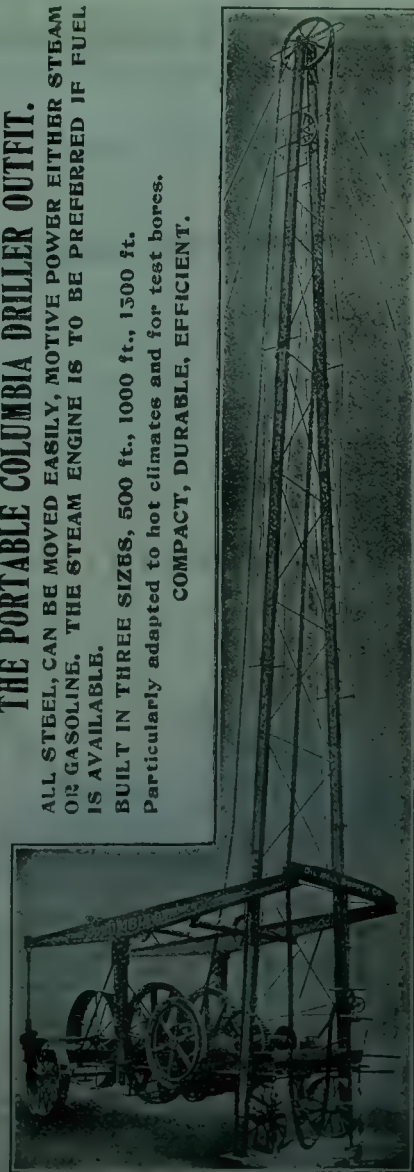
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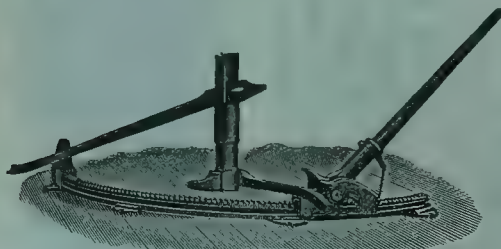


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# PACIFIC OIL REPORTER

VOL. 4. No. 33.

SAN FRANCISCO, CAL., SATURDAY, JUNE 20, 1903.

PRICE, TEN CENTS.

## SALE OF COALINGA OIL.

### Twenty-Four Thousand Barrels a Month for a Period of Five Years.

### Standard Oil Company Buys Practically the Entire Output of the Home and Chanslor & Canfield Companies at a Very Satisfactory Figure.

Last week one of the most important and one of the best oil contracts ever made in the history of the Coalinga or of any oil field was made between the Pacific Coast Oil company, otherwise the Standard Oil company on the one side, and on the other the Home

five years a total of \$979,200.

This oil has been purchased by the Standard presumable for refining purposes, and is but an index of the amount of oil the company will be required to purchase during the next few months in order to insure a sufficient amount

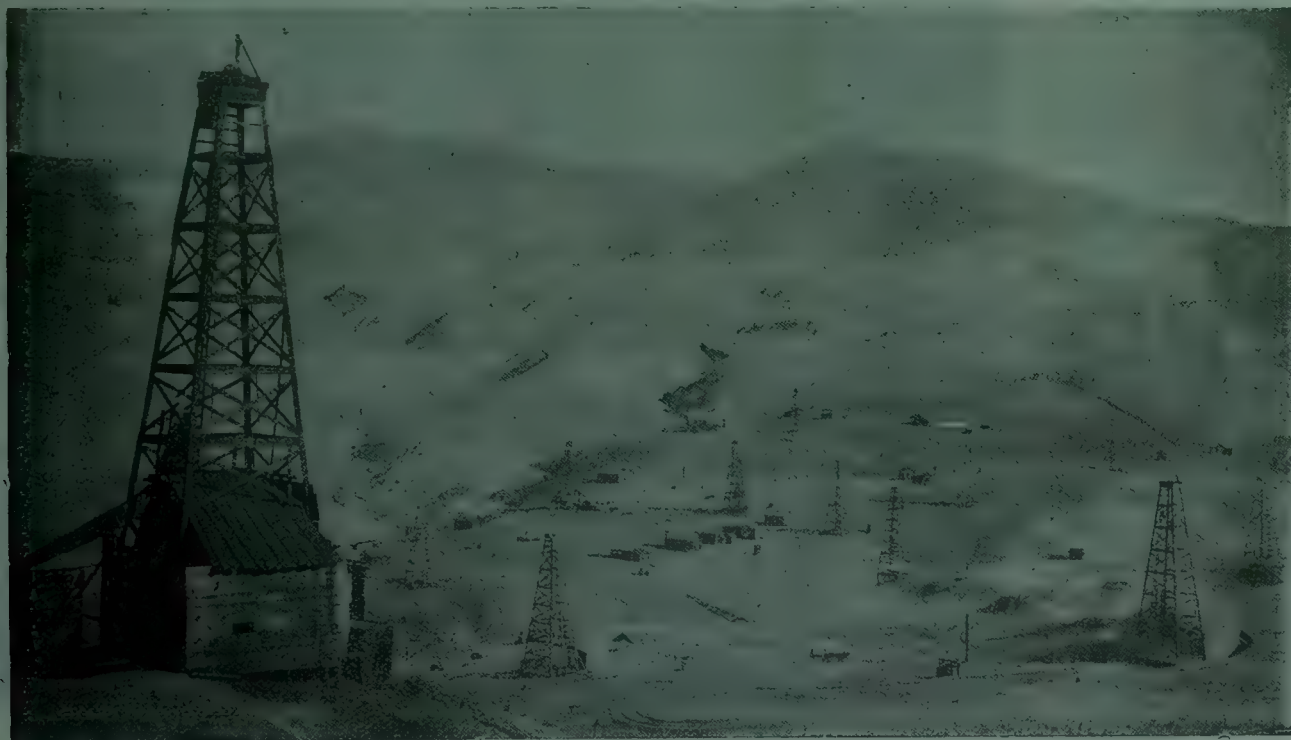
ceiving one-eighth royalty from the sale of Home oil. The Home Oil company has recently settled with Mrs. Hearst so that the latter will no longer receive the rebate which has previously been coming to her. From now on she will receive only her royalty, which in this instance will amount to a goodly sum each month. The Home and the Coalinga companies have each about 50,000-barrel tankage, and the delivery to the Standard commenced on June 15th. The Standard will ship this light oil from the field in tank cars, and from now on Coalinga will for the first time in its history see long trains of tank cars leaving the field each day. The oil from this portion of the Coalinga field is very volatile, being a 34

which are large producers of the 34 gravity oil like that of the Home Oil company. Some of their wells, notably their No. 7 well is the heaviest producer in this portion of the field. Together these wells will easily produce 1,000 barrels a day.

Their contract with the Standard is identical with that of the Home Oil company.

The officers are: President, J. A. Chanslor; vice-president, C. A. Canfield; secretary, E. W. Mason. The other directors are: W. G. Chanslor and E. Kauntze, of Hanford.

The contracts just made with the Standard together with the existing contracts will keep these companies producing to their utmost capacity with their present



Some of the wells of the Home Oil and Coalinga Oil companies, which have made a contract to deliver oil to the Standard at the rate of 24,000 barrels a month for five years.

and the Coalinga Oil companies.

The contracts call for the delivery immediately from each of the Home and Coalinga companies oil each month to the amount of 12,000 barrels per month, the deliveries to extend for a period of five years.

The price received is very satisfactory to all concerned, being at the rate of 65 cents a barrel at the wells for the first two years, and at the rate of 70 cents a barrel for the next three years.

The amount of oil to be produced and delivered through these two contracts during the next five years is 1,440,000 barrels. In the first two years the companies will receive together \$374,400 and in the three following years at the increased price of 70 cents a barrel will receive \$604,800, or in the

to keep its refinery going at its full capacity. The Standard is making all the contracts it can, for it knows that the era of cheap prices is about gone. There will be no more 20 cent oil sold either in the Coalinga or in any other field.

The Home Oil company has eighty acres of proven territory, and has on it only six producing wells. These wells will average 100 barrels each which gives the company a total monthly production of 18,000 barrels. As the company has several existing contracts it will be obliged to drill more wells at once in order to keep up with the demand.

The Home Oil company leases its land from the Homestake Oil company which is controlled by Mrs. Hearst, the Homestake re-

gravity oil, and it will not stand transportation in pipe-lines without losing very much on account of its volatile nature.

The oil will be sent through the refinery not for its illuminating qualities but for the benzine and engine distillates which it contains.

The officers of the Home Oil company are: President, R. V. Ellis; vice-president, J. E. Augsbury; secretary, R. T. Staley. The directors are: R. V. Ellis, J. E. Augsbury, Henry Rosenfeld, A. D. King and F. J. Carman.

#### COALINGA OIL COMPANY.

Chanslor & Canfield are the owners of the south half of section 17, and as the Coalinga Oil company owns the northeast quarter of section 20. On this land they have thirteen wells most of

wells and will no doubt compel them to drill more wells immediately.

#### Recent Patents.

The following recently granted patents relating to oil and gas are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Apparatus for continuously distilling petroleum, Max Livingston, Philadelphia, assignor to Atlantic Refining company, same place; No. 728,257.

Tubing tongs, Wm. H. Downing, Parkersburg, W. Va.; No. 729,294.

Underreamer, M. H. Dum, Fullerton, Cal.; No. 729,743.

Casing and tubing elevator, Kenton Chickering, Oil City, Pa.; No. 729,846.

Elevator for casing or tubing, John Scott, Oil City, Pa.; assignor to Oil Well Supply company, Pittsburg; No. 729,902.

Wire rope knife, C. T. Mapes, Crafton, Pa.; No. 729,951.

Means for loading or discharging oil on or from vessels, John Baker, Jr., San Francisco; No. 729,992.



## THE ASSOCIATED.

### An Important Deal Has Been Made With the Southern Pacific Railroad Company.

#### The Railroad Now the Real Owner of the San Joaquin and Reed Crude Oil Companies' Stock.—Part Played By the Associated.

For the last week speculation and rumor have been rife among oil men as to what was going on between the Southern Pacific railroad company on the one side and the Associated Oil company on the other.

It has been a difficult task to arrive at the exact truth in the matter, because neither the railroad people nor the officers of the Associated would talk, holding that it was for the best interests of those chiefly concerned to say nothing about the details of the affair.

Enough, however, is known to enable the PACIFIC OIL REPORTER to give very nearly the exact facts in the case, although the amount of the contract for oil made by the Associated with the railroad, the length of the contract and the price received for the oil cannot be stated with certainty.

To begin with: A company has been formed, headed by Julius Kruttschnitt, which represents the Southern Pacific in the deals that have been made. The company is called the Kern Trading and Oil company. The capital stock is \$1,000,000, all subscribed. The directors are J. Kruttschnitt, J. H. Wallace, W. A. Worthington, J. L. Willcutt and J. E. Foulds, all prominent officials of the Southern Pacific.

This company has bought all the shares of the stock of the Associated Oil company held by the San Joaquin and the Reed Crude Oil companies. The San Joaquin owned 2,330,515 shares of Associated Oil stock, and the Reed Crude owned 2,800,000 shares. In selling these shares of Associated the San Joaquin has received a partial payment of five per cent, while the Reed Crude has received nothing as yet so far as known. The price paid was 30 cents a share, and the whole amount will be paid November 1st.

It is believed that in addition to this the Southern Pacific has bought nearly all the stock of the San Joaquin and Reed Crude companies. Along with this controlling interest the Southern Pacific has obtained the bonds of the Associated that were issued to the San Joaquin and Reed Crude companies by the Associated when they became a part of that corporation, and that some monetary arrangement has been made and

entered into by the Associated by which they have obtained from the Southern Pacific all the money that will be necessary to make improvements that must be made, prosecute further development work, and in fact to put them in a position where they will be able

and the Associated had made a big deal of some kind, the details of which are just now locked in the breasts of the directors of the Associated and the railroad officials.

Both parties seem satisfied, and Manager Porter is receiving the congratulations of his many friends.

Just what the outcome will be as the years roll by is hard to say. There are those who say the Associated has put its neck into the noose the railroad has carefully hung for it. It is affirmed that the astute Rockefeller is behind the deal, and that his fine Italian hand is plainly discernable. It is a well-known fact that the Standard's interests in the Southern Pacific are by no means small, and it is assumed that the railroad will

The deal has been made; the Associated will have all the money it needs; it will supply the railroad with lots of oil, and things are lovely all around, both for the railroad and the Associated.

It is said on pretty good authority that the price the railroad will pay for its oil is 26 and 27 cents a barrel. This is the price f. o. b. at Bakersfield. The amount is said to be in the neighborhood of 10,000,000 barrels, to be delivered in three years.

If this report be true, and it is correct enough to gamble on, there ought, in the course of time, to be money enough in the Associated's treasury to begin to pay the stockholders some dividends. They are a patient set of sufferers—have been, anyhow, and now



One of the wells of the San Joaquin Oil company, the stock of which has just been purchased by the Southern Pacific company. John A. Bunting, the principal shareholder of San Joaquin stock, is seen in the center of the group. Mr. Bunting is now touring the East in his private car.

to handle their output to advantage, no matter how great the oil production may become. To secure the money thus obtained the Associated has made an arrangement by which the Southern Pacific has obtained a mortgage on the Associated's property.

The Southern Pacific needs oil—lots of it. The railroad will soon be using a minimum of 8,000,000 barrels a year, and will increase this amount very considerably and rapidly each year.

What the railroad wanted was oil.

What the Associated needed was money for further improvements, and most of all it wanted a great market close at hand where there would be no cost for transportation.

It would seem as if the railroad

do about as the Standard wants it to do.

There is no doubt but that the business of the Associated is taking a big slice in the business the Standard would like to do, and it may be that this deal, which is supposed to be in the interest of the Associated, will eventually prove to have been made in the interest of the Standard Oil company.

Anyhow, the railroad has now got a big cinch on the Associated, and when the time comes for a reckoning, if the Associated should not have the money to pay its debts with, and a pound of flesh should be demanded, it looks as if the Associated would have to scurry around pretty lively after a good lawyer to rescue it from the knife.

that this big deal has been consummated if they don't begin to get some coin of the realm there will be trouble.

Last Saturday the following circular was sent out by the San Joaquin Oil company to all its stockholders. It is given below in full as it explains some matters the general public is extremely interested in. Attention is called to the last clause which would indicate that the small stockholders had better get in out of the wet as soon as possible. Sell your stock to the railroad or anyone before the storm breaks. The clause referred to reads: "We hope soon thereafter to wind up the affairs of this company."

SAN FRANCISCO, June 11, 1903.

TO THE STOCKHOLDERS:—

January 1st, 1902 we sold the property of this company to the Associated Oil



company, of which you were advised at the time, and later the same was duly insured.

This sale was made for \$196,769 worth of gold bonds of the Associated Oil company, the same running for twenty years, with interest thereon at 5 per cent net, and 2,330,515 shares of the capital stock of the same company.

The bonds owned by this company were paid as a dividend to you May 5th of \$1.96 per share, payable in such bonds, some taking bonds others cash at the rate of 75 per cent of the face value.

Later during the month of May we received an offer to buy all the stock in the Associated Oil company owned by this company, the consideration being 30 cents per share.

After considering the matter from all standpoints for some days the offer was accepted, and 5 per cent of the money was paid, amounting to \$34,957.75 which we paid as a dividend on the San Joaquin stock June 1st.

Under the contract the balance, \$664,196.75, will be paid to us November 1st, when it will in turn be paid to the stockholders and we hope soon thereafter to wind up the affairs of this company.

Yours very respectfully,  
SAN JOAQUIN OIL AND DEVELOPMENT  
COMPANY,  
By JOHN A. BUNTING, President.

### Change of Officers.

At the annual meeting of the board of directors of the Caribou Oil and Mining company the following were elected officers and directors, to serve the ensuing year: President, H. H. Hart; vice-president, W. A. Spinks; secretary, W. H. Sigourney; directors, H. H. Hart, O. Hart, J. H. Dearlin, John Hinckle, W. A. Spinks.

It is more than likely that the Caribou company will soon succeed in making some advantageous contracts for oil which will enable them to put down more wells and materially increase their production. The company steadfastly has refused to sell their superior oil at prices that would yield little or no profit. There is every reason to believe that those who require this grade of oil will soon be willing to give a fair price for it.

It is reported that the Russian government is now considering the desirability of modifying the system of leasing out government lands by introducing leases for twenty-four years only, instead of the present leases for an indefinite period until the exhaustion of the land.

## SUPREME COURT DECISION.

### Full Details of the Great Case in Which the Scrippers Were Beaten.

### A Sweeping Victory For the Oil Men, Which Will Result in Favorable Decisions For Them in Controversies Now Pending.

The United States Supreme Court has rendered a decision in the case of the Cosmos Exploration company vs. the Gray Eagle Oil company, involving a long-standing controversy between certain speculative interests and a large number of oil prospectors in the California oil fields whom it has been sought to dispossess. The decision of the court is a sweeping victory for the oil companies, not only because of the rejection by the court of the applications for injunctions against further prospecting, but also because of certain suggestions to the General Land Office contained in the opinion, the effect of which will be to increase the probability of decisions favorable to other oil prospectors in controversies now pending.

The case just decided by the court arose upon an attempt of certain holders of land scrip, received by them in exchange for forest lands relinquished to the government to apply the scrip for the entry as agricultural land of certain contracts upon which other parties were prospecting for oil. The original holder of this land scrip, one C. W. Clarke, filed an entry with the register and receiver of the United States Land Office at Visalia, Cal., for certain lands in Kern county which, according to official maps and other governmental data, did not then contain any known minerals, salines, petroleum or mineral oils. Based upon this entry the complainants in this case, to whom Clarke assigned his rights, assert their title to the lands in question on the ground that, although oil prospectors were then at work upon the lands and oil was subsequently discovered thereon in commercial quantities, the character of the land as shown by gov-

ernment data at the time the entry was made, must govern the Land Office in issuing patent therefor. In other words, while conceding that the land is now properly known as mineral land, the contention has been set up that at the time it was entered it was officially "agricultural land" and therefore subject to be taken up by the forest lieu scrip referred to.

The defendants, on the other hand, claimed, first, that the land was mineral land, whether the government knew it or not, and, second, that under the placer mining laws they had taken it up before it was filed upon by the owners of the forest lieu scrip. In order to protect their rights, the defendant oil companies, as soon the land was selected by the scrip holders, filed in the United States Land Office at Visalia a written protest against the selection, in which it was alleged that the land was not subject to entry on the basis of forest lieu scrip because it was mineral land and was included within the boundaries of a valid placer mining location. In the protest the claim was set up that the final decision as to the character of the land in question must be made by the commissioner of the General Land Office and not by the local officers at Visalia. This protest is still pending in the General Land Office.

Being dissatisfied with the proceedings in the General Land Office, the complainants filed a petition in the United States Circuit Court for a writ of injunction enjoining the defendant oil companies "from excavating or digging upon the land for the purpose of taking petroleum oil from the wells thereon, or from marketing or disposing of the oil until further order and decree of the court in the premises." It was

also prayed that the complainant might have the judgment of the court "that the full and equitable title to the property is vested in the complainant \* \* \* and that the adverse claims of defendants thereto should be decreed to be wholly without right and unfounded, and that complainant have judgment for the possession of the land, and that a receiver should be appointed to take possession of the land and to preserve the same and the product thereof until the further order of the court." Upon the filing of this petition and bill the defendants introduced a demurrer and presented a large number of affidavits, which in substance averred that the complainant was guilty of fraud and bad faith in locating the claim, and that such location was a fraud upon the statute under which it was assumed to be made. After full hearing, the defendants' demurrer was sustained and the bill dismissed by the Circuit Court, and subsequently this action was affirmed by the Circuit Court of Appeals and an appeal was taken to the United States Supreme Court. In deciding the case, the Supreme Court says, in part:—

"The ground which complainant insists that it is the equitable owner of the land selected is that it has relinquished a title in fee in a forest reservation, and has selected in lieu thereof vacant land open to settlement, and that the local land officers duly accepted, received and filed the deed of the land relinquished, and the affidavit that the land selected was non-mineral, and that the officers duly entered such selection upon the official records of the land office, and then and there certified that the land selected was free from conflict, and that there was no adverse filing, entry or claim thereto. Complainant asserts that was all that it could reasonably do; that nothing remained on its part to do, and that when such is the case, the equitable title vests, and it is entitled to the protection of a court of equity to preserve and defend the title so acquired.

"Counsel insists that the act of June 4, 1897, constitutes a standing offer on the part of the government to exchange any of its 'vacant land, open to settlement for a similar area of patented land in a forest reservation, and that whenever a person relinquishes to the government a tract in a forest reservation and places his deed to the government of record as re-

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quired by the Land Department rules, and selects in lieu thereof a similar area of vacant land, open to settlement, that such offer of the government has thereupon been both accepted and fully complied with, and that a complete equitable title to the selected land is thereby vested in the selector.

"But even the complete equitable title asserted by complainant must, as it would seem, be based upon the alleged right of the local land officers to accept the deed and approve the selection, even though such approval may be thereafter the subject of a review in the nature of an appeal from the action of the local officers. There must be a decision made somewhere regarding the rights asserted by the selector of land under the act, before a complete equitable title to the land can exist. The mere filing of papers cannot create such title. The application must comply with and conform to the statute, and the selector cannot decide the question for himself.

"We do not see how it can be successfully maintained that without any decision by any official representing the government, and by merely filing the deed relinquishing to the government a tract of forest reserve land and assuming to select a similar area of vacant land open to settlement, the selector has thereby acquired a complete equitable title to the selected land. The selector has not acquired title simply because he has selected land which he claims was at the time of selection vacant land open to settlement, nor does the filing of his deed conveying the land relinquished and the abstract of title with it show necessarily that he was the owner of the land as provided for by the statute. So far as his action goes, it is an assertion on his part that he was the owner in the fee simple of the land he proposed to relinquish, and that the deed conveys a fee simple title to the government, and also that he has selected vacant land which is open to settlement, and that therefore he is entitled to a patent for such land, these assertions may or may not be true. Who is to decide? Complainant asserts that if a decision be necessary before the vesting of a complete equitable title, that in that case the local officers are to decide that question, and by accepting the deed and making the certificate already mentioned, they have decided it, and thereupon, at all events, the complete, equitable title accrued, even though such decision were subject to a review by the Commissioner of the General Land Office and thereafter by the secretary.

"But, as has already been stated, there is nothing in the statute of 1897 which gives the local land officers the right to decide whether the selector has complied with the provisions of the act, and unless those officers had that power they did not acquire it by assuming to exercise it. We do not say they did so assume. They received, accepted and filed the deed, the abstract of title, the non-mineral affidavit and the selection as made by Clarke. They entered that selection upon the official records of the land office and they certified that it was free from conflict, and that there was no adverse filing, entry or claim thereto, but it cannot be said that

they decided that the selector had complied with the provisions of the statute or that he had done all that he ought to have done in order to acquire his alleged complete, equitable title.

"Their certificate that the land was free from conflict was simply a certificate as to what appeared on the books of the local office, and the same may be said of the statement that there was no adverse filing, entry or claim thereto upon such books. No affidavit of non-occupancy was filed, and they did not certify that the land so selected was in fact vacant or unoccupied, nor did they assume to certify that the selected land contained no mineral, although an affidavit to that effect was presented to them. In truth, all that these local officers did was to certify that the selector had done certain things, and that the land selected was vacant and open to settlement so far as it appeared from the books of the local land office.

"Taking into consideration, however, the fact that the statute did not vest the local officers with the right to decide upon the question of a compliance with its terms, and the further fact that the Land Department had adopted rule 18, above referred to, which provides for the forwarding of all applications for change of entry or settlement to the Commissioner of the Land Office for his consideration, together with a report as to the statute of the tract applied for, we must conclude that the action of the local officers did not, as it could not, amount to a decision upon the application of the selector so that he became vested with the equitable title to the land he assumed to select. It is certain, as we have already remarked, there must be some decision upon that question before any equitable title can be claimed—some decision by an officer authorized to make it. Under the rule above cited that decision has not been made. The General Land Office has (so far as this record shows) come to no conclusion in regard to it.

"The protest by the defendants was duly filed within the time permitted by the regulations of the office, and the questions arising thereunder are, as stated, in the bill still pending before the General Land Office. Whether it was necessary, at the time of making the selection, for the selector to file in addition to his non-mineral affidavit an affidavit that the land was not occupied in fact, is a question of law for the Land Department to determine among the other questions to be decided by it. Its decision of any legal question would not, of course, be binding on the courts whenever such a question might properly arise in any future litigation. It is also for the Land Department to determine whether, if the land were not known to be mineral land at the time of the selection, the fact that mineral in paying quantities has been found since that time, will vitiate that selection.

"In *Kern Oil company vs. Clarke* (30 L. D. 550, 567), referring to the necessity of a filing of a non-occupancy affidavit, it was said:—

"That a non-mineral affidavit should accompany the selection is not seriously questioned by appellant. It is just as essential that it should be accompanied by a vacancy or non-occupancy affidavit. Appellant's contention that the word

"vacant", as used in the statute, means public lands which are not shown by the records of the local office or General Land Office to be claimed, appropriated or reserved cannot be accepted. Portions of the public lands may be occupied, and for that reason be not subject to selection, and yet there is no mention of their occupancy in the records of the Land Department."

"Again, *Gray Eagle Oil company vs. Clarke* (30 L. D. 570), it was also held that under the act of June 4, 1897, it must be shown that at the date of selection the selected lands were unoccupied as well as non-mineral in character, and that until that proof was submitted a selector had not done that which converts the offer of exchange into a contract fully executed on his part whereby he secures a vested right in the selected land. It is unnecessary for the court to express an opinion as to the correctness of these views of the Land Department as stated in its opinion in the above cases.

"What may be the decision of the Land Department upon these questions in this case, cannot be known, but until the various questions of law and fact have been determined by that department in favor of complainant it cannot be said that it has a complete equitable title to the land selected.

"Concluding, as we do, that the question whether the complainant has ever made a proper selection in lieu of the land relinquished, has never been decided by the Land Department, but is still properly before that department, the courts cannot take jurisdiction and proceed to decide such question themselves. The government has provided a special tribunal for the decision of such a question arising out of the administration of its public land laws, and that jurisdiction cannot be taken away from it by the courts. (*United States vs. Schurz* 102 U. S. 378, 395.)

"The bill is not based upon any alleged power of the court to prevent the taking out of mineral from the land, pending the decision of the Land Department upon the rights of the complainant, and the court has not been asked by any averments in the bill or in the prayer for relief to consider that question.

"For the reasons stated, we think the bill does not state suffi-

cient facts upon which to base the relief asked for, and that the defendants' demurrer to the same was properly sustained. The decree of the Circuit Court of Appeals must, therefore, be affirmed."

The court announced in this connection that the case of the Pacific Land and Improvement company vs. the Elwood Oil company involving identical issues was also decided in favor of the oil company.

In connection with these decisions the court has also rendered an opinion in the case of the Riverside Oil company vs. the Secretary of the Interior, which is an application on behalf of certain parties who purchased land from C. W. Clarke for a writ of mandamus to compel the secretary to reverse certain rulings and issue patents to the plaintiff. It will be noted that the oil company in this case derives its rights from Clarke, whose title was based solely on the forest lieu land scrip entry, and the court holds in favor of the Secretary of the Interior on the ground that the rulings made by him adverse to Clarke et al, were made within his constitutional discretion, against which a mandamus cannot be issued.

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## OIL FIELDS OF JAPAN.

### Authoritative Statement From the Imperial Geological Survey.

#### The Different Fields, Amount of Development Work, Number of Wells, Amount of the Oil Output Refinery Capacity, Kind of Oil.

THE PACIFIC OIL REPORTER has published two letters from prominent Japanese operators in the oil fields of Japan, which letters have been widely copied by eastern and foreign oil publications.

Herewith is presented a letter just received from the head of the Imperial Geological Survey of Japan, Dr. S. Otonka. This letter contains information not before set forth by other writers, and is especially valuable as it bears the stamp of governmental authority and reliability. Its correctness cannot be questioned.

The letter is as follows:

TOKYO, May 12, 1903.

MR. W. B. WINN, EDITOR PACIFIC OIL REPORTER—Dear Sir: I send you a few lines concerning the subject set forth in your letter dated February 20th and addressed to the geological survey.

The oil fields of Japan are mostly confined to the tertiary formation of Northern Japan.

In Northern Japan are:

#### I. Echigo Province:

- a. Kubiki oil field, extent 39 by 21 kilometers.
- b. Nishiyama oil field, 18 by 8 kilometers.
- c. Higashiyama and Niitsu oil fields, 64 by 10 kilometers.

The above three fields are the present productive fields in Echigo.

Besides, there are some seepages and hand wells in Kita-Kambara, Echigo, of a minor importance.

#### II. Ugo and Mutsu Provinces:

The chief oil field is that of Akita in Ugo. There are a number of abandoned hand wells; drillings are now carried on. In Mutsu there are a number of seepages and oil pools, but the field is not yet well explored by the drilling.

III. The oil bearing tertiary of Mutsu continues to the island of Hokkaido, where seepages are found in the provinces of Ishikari and Hideka. Drillings are not successfully carried on. Productions are of a minor importance.

In Central Japan:

#### I. Totomi Province:

Sagara is its chief oil field, 10 by 4 kilometers in extent.

Besides, we have some oil fields in the island of Formosa, most of their localities being known by seepages and oil pools.

Ninty-nine per cent of our pro-

duction of crude oil comes from the oil fields of Echigo.

The approximate number of oil wells in 1902 is estimated as follows: Number of wells drilled by the rope system, 450; number of wells drilled by Kadzusa system, i. e., using bamboo instead of rope, 200; number of hand wells, 150.

Average depth of oil wells, except some deepest ones, varies from 500 to 1,500 feet.

The total production of crude oil in 1902 was 1,060,000 koku (1 koku equals 1.13 American barrels)

Approximate amount of refined oil in 1902 was: Lamp oil, 410,000 koku; volatile oil, 22,000 koku; light oil, 62,500 koku; heavy oil, chiefly refined as machinery oil or used as a liquid fuel, 436,000 koku; residue as pitch, 80,000 koku.

The probable production of crude oil in 1903 will be 1,100,000 koku.

Specific gravity of crude oils:

Northern Japan: Echigo—Nishiyama and Higashiyama, 0.818 to 0.900; Kubiki, 0.825 to 0.867; Niitsu, 0.975; Kita Kambara, 0.927. Ugo—Skita, 0.886 to 0.931. Hokkaido, 0.984.

Central Japan: Totomi—Sagara, 0.808.

Yours respectfully,  
DR. S. OTONKA,  
Geological Survey of Japan.

## WILL OIL ROADS.

Roads About Newman, Stanislaus County, to Be Oiled.

Supervisor Clary of Stanislaus county is getting together a road-oiling plant, and will oil roads in and about Newman, Crow's Landing, Westley and Grayson this season, the measure of his operations to be limited only by the funds available.

He has ordered a portable boiler, a 4,000-gallon reserve tank and a DeCamp road oiler.

The oiler is attachable to the ordinary tank wagon. It consists of a combination harrowing, sprinkling and re-harrowing device. A set of iron fingers, set just in front of the sprinkler proper, open the surface to the oil; another set, behind the sprinkler proper, act as a mixer of oil and earth.

The boiler will be used to heat the oil, by means of steam pipes running through the tank wagon. It will be on trucks, that it may be readily utilized anywhere in the road district.

The reserve tank will be stationed at Newman, the supply of oil held by it to be available for repairs. A tank wagon is already available.

Supervisor Clary is well satisfied—"more than satisfied" as he expresses it—with the results of his experiments in this direction last season. While all of the road oiled is not smooth, by reason of grading defects, it remains dustless and resilient, the surface a semi-asphaltum crust.

Speaking of the cold oil process now in vogue to some extent, the Supervisor expresses himself to the effect that its advocates do not question the efficacy of the hot oil process, and his observations lead to the belief that the latter is the more desirable for the heavy earth of the West Side. He thinks that the cold oil process would answer all purposes on the east side of the San Joaquin, however.

THE PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## HOT SHOT FOR TRUSTS.

Fresno Republican After City Street Improvement Co.

It is to be hoped that the City Trustees will give the asphalt paving contractors a chance, under proper conditions, to show that their pavement is as good as bituminous rock. There is, in fact, no question that an asphalt pavement properly made, is as good as the best. Many of the pavements in Los Angeles are asphalt, and all the pavements in Washington, D. C., the best paved city in America, are asphalt. The base of the Washington pavements, to be sure, is Trinidad asphalt, while in California we should be obliged to use a California asphalt, of less tested quality, and probably a larger proportion of residuum asphalt than is used in the East, but even with these differences it seems strongly probable that an asphalt pavement could be made quite as good as the best bituminous rock pavements, and much better than such bituminous rock pavements as we usually get. And there will be, also, the double advantage of getting the pavement cheaper and of escaping the clutches of the trust.

There is no question that Fresno has been overcharged for its pavements. The City street improvement company has arrangements which make it practically the only bidder for bitumen pavement in this territory. We have dealt with this company, not because we like it or its methods, but because we had no choice. It is a company with a reputation for dealing on principles far from scrupulous in its relations with public bodies, and for charging all the traffic will bear, everywhere. If it can be compelled by competition, to give us good pavements cheap, of course we can continue to deal with it, but it would not be fair to the asphalt companies to use them merely as clubs to beat down the price of bitumen. If the asphalt companies will furnish a really good pavement, and do it cheaper than the bitumen trust, they are entitled to the job. —Fresno Republican.



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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:

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SATURDAY.....JUNE 20, 1903

The PACIFIC OIL REPORTER, published at San

**The Wyoming Edition** Francisco, devoted its issue of June 6th to

a special Wyoming edition, most of its subject matter being on the oil conditions in Uinta county. The illustrations are superb and the edition will go far toward bringing our coming industry to the attention of investors.—Wyoming News-Register.

Last Saturday's edition of the PACIFIC OIL REPORTER, published at San Francisco, California, was devoted to a special write-up of the Uinta county oil fields. The volume contains twenty-four pages of descriptive reading matter with illustrations showing the numerous producing wells, prominent members of the many different companies operating here, members of the Evanston Oil exchange and a bird's eye view of Evanston together with other pleasing features pertaining to this oil zone.—Wyoming Press.

As soon as oil that has lately been contracted for

**The Coalinga Field** by the Standard Oil company gets to being delivered in the pipe-line and by tank cars the Coalinga field will jump at once into the front rank of the oil-producing sections of the State.

Few people have realized the great capabilities of this field in the line of oil production, and even now few realize that with the wells now drilled in this field

Coalinga can to-day produce yearly from seven to eight million barrels; yet such is the case.

Until the present time the field has been handicapped. The time was not ripe for the Standard to buy its oil; but when the time arrived the Standard stepped into the field, and in a few weeks had made contracts amounting to many million barrels of oil, and extending through a long period of years.

These first contracts made with companies who had not yet sold any oil and were anxious to obtain an outlet for their product as well as to offer such inducements to the Standard that it could not refuse to enter the field as a buyer, were extremely low in price. But the result has been that the Standard was induced to enter it, and the companies who have made these contracts will be numbered among the heavy producers of the State much sooner than they had dared to hope.

Take it all around both the Standard and the oil companies in the Coalinga field are well satisfied with each other, and the result will be that the Coalinga field will soon be regarded as one of the best producing fields in the State both as regards the quality as well as the quantity of its oil.

The recent deal of the Home and the Coalinga companies is but an index of the capacity of this field in the line of desirable production.

Thus far the policy of the Associated has been to say but little as to its affairs. It believes in keeping its business to itself, and in saying little either to the public or its stockholders so far as regards its business affairs.

In pursuance of this policy it has had little to say in regard to the recent deals made between itself and the Southern Pacific. In fact, in some respects it could say but little; for although it owns all the properties of the companies associated with it, the Associated has nothing to do with directing the policy of the companies so far as their manipulation of their own stock is concerned.

Reference to the article on the fourth page of this issue will reveal a state of affairs that is a revelation to some, while to others it is already an old story. A deal of great importance has been effected so far as the Associated's future is concerned. It may result well; it may result ill. Some believe the Associated has obtained the money it needed, but in getting this it has only put off the evil day when payments must be met, and when this comes the company will not be able to meet the debt. Others say that the deal is only an illustration of the great business ability and

sagacity of Manager Porter, of the Associated Oil company, and that when the time of payment comes the Associated will not only be able to meet all comers, but will also be able to show its ability to declare substantial dividends to its stockholders.

The stock of the San Joaquin and the Reed Crude has been turned over to the Southern Pacific, acting, maybe, as the Standard Oil company wishes. The stock of the Kern company is expected to go the same way.

What will be the final outcome no one can at present foretell.

Two things only are evident:

First—The railroad has got the oil it needed; and

Second—The Associated has obtained the money it must have to carry on its plans for improvement and development work.

## THE EASTERN FIELD.

**Many New Wells But Small Increase in Production.**

Increase is the word that characterizes the operations in the various oil fields during May, and it applies to everything connected with field work save the single item of new production from the Pennsylvania regions. Here there was a small decline, but in new wells, new rigs, etc., the gain was most pronounced. At the close of the month the fields producing Pennsylvania and Lima oils presented nearly two thousand rigs and drilling wells in operation.

This number has never been equalled before and marks the top notch thus far in field activity. Taking the operations for oil in Kansas, Indian Territory and California into consideration it will be seen that the petroleum industry has never before approached its present magnitude. Never before has there been such an enormous demand for oil well machinery and appliances of every kind, and never before has there been such an army of oil well drillers, tool dressers, plumbers and well workers of every kind employed in the various sections where petroleum is known to exist.

April was the first month of the current year to present unmistakable signs of increase and its gains over March in field work was notable but March was an unfavorable month and fell below the average, recording the smallest number of completed wells of any month of the current year. Compared with February, April completed more wells, but was behind it in point of new production, and the short month is usually considered to touch low water mark in field activity.—Oil City Derrick.

Notwithstanding the disappointment of the operators in the Northern fields because of a reduction in the price of the product at a

time when a substantial advance was confidently expected, it appears that this did not tend to check development operations, the amount of new work in all the fields showing a large increase. An advance in the price could scarcely have stimulated field work to greater activity, and at the close of the month the new work started shows there is no abatement in the search for oil. There was a large increase in the number of wells completed during May, as compared with the month preceding, and a moderate increase in new production is shown; but the average production of the May wells was somewhat smaller, and the results were consequently less satisfactory, the decrease in the average being over one-half barrel per well. The percentage of dry holes reported was a trifle smaller and the results were consequently less satisfactory, the decrease in the average being over one-half barrel per well. The percentage of dry holes reported was a trifle smaller and consequently fewer large wells rewarded the drillers. In fact, the rule during the month appeared to be small pumpers, and there is now little encouragement to expect better results in the future.—Oil, Paint and Drug Reporter.

## THE PIPE-LINE.

**Oil Will Reach Point Richmond by the First of July.**

The oil in the Bakersfield pipeline is steadily flowing toward the bay, and it is stated by the Pacific Coast Oil company's officials that the oil will reach the refinery at Point Richmond by July 1st. It is more than likely that in a day or two the light Coalinga oil will be sent into the main pipe-line, and as this flows as easily as water and without heating there could be no difficulty encountered in getting the oil to Point Richmond by the first of the month.

In regard to new work at the refinery the Richmond Record says that there is great activity out at the oil works. New force is being added to the rolls every day. Ground is being graded and filled for a large number of new stills. Capacity at every point is being increased.

The car repairing department is rebuilding a large number of tank cars. Old cars are being transformed into cars of the latest design.

An electric road is to be built between the works and the Arctic works out on the water front. It will be used for transferring products and supplies from one to the other. The packing department and barrel house need this connection badly. Work will begin on the trolley line immediately.

The work of enlarging the office building will also be pushed rapidly. It will be made a two story building.



## TO PUT OUT OIL FIRES.

## A European Invention That Is Not a Complete Success.

We now add further information to our former notice on this subject. Mr. Loran, of Baku, has made new experiments with the extinguishing fluid which he himself invented, and at a recent date sought to extinguish a naphtha conflagration. Although this attempt did not yield the anticipated results, it nevertheless demonstrated the excellent operation of his method of extinguishing fires. For this experiment with the automatic extinguisher one has added apparatus which are allowed to convey the fluid to the bottom of the burning reservoir, whence it immediately rises to the surface in order to smother the fire. But because (without the knowledge of the discoverer) over 1,000 liters of water were admitted into the reservoir the spontaneous extinguisher of fire was not successful. The reservoir in which the experiment was made had a diameter of ten meters, height of two meters and a capacity of 15,000 meters of crude oil. When the experiment to automatically extinguish the fire failed Mr. Loran resorted to ordinary methods, namely, to simply empty 200 liters of extinguishing fluid upon the mass,

which had been burning for fifty minutes, and the fire was instantly smothered; 4,000 liters of oil were already prey to the flames.

Mr. Loran could not be satisfied with the results of this experiment; he was sure that spontaneous extinguishment would be possible. Consequently, soon after the discoverer made a new attempt, and this time met with success. Presently he was appointed to a technical commission by the Governor. The same reservoir which served for the first experiment was filled with crude oil. At a distance of twenty meters there was a cask containing sixty eimers of the fluid, from which a pipe four inches in diameter led to the reservoir and there terminated in an end sealed with wax. When the oil took fire the wax which sealed the pipe melted, and the extinguishing fluid flowed over the burning surface and the conflagration was smothered almost instantly. The wooden walls of the reservoir, which still continued to burn, were quenched with water.

Far less satisfactory resulted an experiment on a larger scale, which was set in motion March 20. Into a large trench nine fathoms in length and three fathoms wide six barrels of water and 800 poods of crude oil (that is close to 100

barrels) were poured, so that the same reached a height of from three inches to twelve inches in the trench (the bottom of this was inclined). For the extinguishing three pairs of barrels, which were arranged in two rows on a raised place, were prepared with extinguishing fluid. The three barrels of the first row contained a solution of albumen (white of egg) in 10 per cent. soda lye and the barrels of the second row contained diluted sulphuric acid. When employed the alkali albumen solution was allowed to flow upon the burning surface first, then the acid. From the soda solution carbonic acid is expelled by the acid, and this blows up the albumen coagulated by the warmth which, in consequence of this, forms a vesiculated strata driven upon the burning fluid, whereby the influx of air is hindered and the flame smothered. With the preceding experiment the naphtha was set on fire, and after a time, when an intense fire had seized the entire surface, the extinguishing fluid was forced to the surface in three places. Within four minutes about three-quarters of the fire was extinguished; one-quarter of the mass continued to burn and had to be extinguished with salt water. A second experiment was made with pure water after the

extinguished naphtha surface was again fired. For the purpose of extinguishing the fire with water from fire buoys and hand pumps eight minutes were required. Those present, in recording a description of the experiment, have not considered this sufficient, because one has projected—and, indeed, with a certain right—that the second extinguishing of the fire with water was done so easily, because the water was aided by the extinguishing material which remained in the oil from the other experiment. The experiments should be continued, but the result of the last has dampened the extravagant expectations heretofore entertained for it, and has shown that, while the Loran extinguishing method is very effective for small fires, its effect upon large burning masses has not entirely met expectations.—Naphtha.

## Special Coalinga Edition.

The special Coalinga edition of the PACIFIC OIL REPORTER will be published July 4th.

This edition will be the finest oil paper ever issued.

It will contain a full description of every company operating in the Coalinga field, and photographs of every rig in the field will be reproduced by elegant half tone cuts.

Send in your orders now for advertising and extra copies.

## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NATURAL OILS, WITHOUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
	Gallons	Value	Naphtha, including All Lighter Products of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been distilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
March, 1903.										
British Columbia.....					300	\$75				
Costa Rica.....	304	\$19	1,030	\$234	700	147	278	\$101		
Guatemala.....					9,760	1,996	330	157		
Honduras.....			300	70	200	38				
Salvador.....			110	18	4,810	784				
Mexico.....					150	28	317	106		
Chinese Empire.....							40	20		
Japan.....							2,850	576		
British Australasia.....							1,000	211		
French Oceania.....					370	79				
Alaska.....			660	122	940	208	3,630	771		
Hawaiian Islands.....	218,000	7,150	11,280	1,872	162,500	26,381	7,198	3,171		
Tutuila.....					1,182	237				
Total.....	218,304	\$7,169	13,380	\$2,316	180,912	\$29,973	15,643	\$5,113		
April, 1903.										
British Columbia.....					200	\$49				
Costa Rica.....					600	136	81	\$42		
Guatemala.....					8,060	1,600	366	157		
Salvador.....					3,600	638	331	152		
Mexico.....							474	172		
Chili.....							1,455	455		
Chinese Empire.....							600	120		
British Australasia.....							5,200	1,514		
All other British Oceania.....					60	15				
French Oceania.....					490	105				
Alaska.....			96,830	\$9,334	39,738	5,829	4,820	2,160		
Hawaii.....	1,092,000	\$36,400	11,790	1,699	27,880	5,868	6,361	1,442		
Tutuila.....					40	11				
Total.....	1,092,000	\$36,400	108,620	\$11,033	80,668	\$14,246	19,689	\$6,214		
May, 1903.										
British Columbia.....							555	\$265		
Costa Rica.....			2,420	\$427	2,110	\$416	69	31		
Guatemala.....					9,180	1,925	330	98		
Honduras.....			60	16	2,150	430				
Salvador.....			110	25	2,800	539	360	133		
Mexico.....					140	31	226	62		
Peru.....							320	111		
British Australasia.....							1,938	491		
French Oceania.....			3,040	434						
German Oceania.....			1,950	368			59	28		
Alaska.....			12,080	2,324	4,687	1,071	140	70		
Guam.....					2,040	421	104	53		
Hawaii.....	2,534,698	\$84,260	28,760	3,254	36,600	7,688	12,301	4,733		
Total.....	2,534,698	\$84,260	48,420	\$6,848	59,707	\$12,521	16,402	\$6,044		



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

A dispatch from Seattle states that the fight between the Standard Oil company and E. H. Harriman for the control of the Alaska oil fields began with the sailing of the steamship Albion. The Harriman party includes experts, engineers, machinery, everything necessary for full exploitation of the Kayak and other fields and the purchase of present locations. The Standard Oil party sailed a few days ago, taking a full equipment and prepared to secure control of all the promising fields. Both parties are under instructions to spend any amount of money to gain control of what is now believed to be the largest oil field in the world.

#### COALINGA.

McClurg & Claypool are rigging up for No. 3 well. They will move No. 2 rig to the place where they expect to drill and put a secondhand rig, which is needed for a pumping well, in its place.

Messrs. Brown & Garrigan have subleased a portion of the SW. ¼ of section 1, 20-14, from B. A. Hayne, and are now rigging up to be ready to spud in immediately after completing well No. 3 for the Esperanza, which they are drilling by contract.

The El Zuma Oil company completed well No. 3 a couple of weeks ago, which proved to equal their other wells in production. This company will continue pumping from the three wells during the summer, and in early fall will begin rigging up for other wells.

Messrs. Jim Brunton and L. Nathan are making arrangements to begin operations on section 7, on the portion leased by Mr. Nathan from the railroad company. As this is located almost directly south of the Esperanza and famous Penn-Coalinga wells, their making a rich strike is beyond doubt.

For more than a week the California Oil Fields, Limited, have received their water from the Coalinga Consolidated Water company, on account of a break in the engine. This necessitated running double shifts at the water plant for a while. The break has been repaired and the trouble for the Limited obviated.

The Pacific Tank company shipped in another load of tanks this week. A 600-barrel goes to the Fresno-San Francisco, two 1,300-barrel to Section Seven Oil company, and a 1,200-barrel for the El Zuma Oil company. All of these companies are now delivering oil to the Standard line from the large producing wells.

The building for the district foreman on the Standard pipe-line is practically completed. It is a handsome structure, located on section 6, near the company's tank. The company is still waiting for several carloads of pipe with which to complete its branch field lines and connecting the tank on section 6 with the main tanks on section 21.

Another rig is being put in for the Philadelphia-San Francisco this week for well No. 3. Section Seven Oil company is ready to spud in the early part of next week on well No. 2. When these two wells will be drilling the Penn-Coalinga will begin work on No. 3. There is considerable activity displayed in that section of the field, as most of the companies are located on railroad land, which requires their lessees to drill two wells per annum for a number of years.

With the spudding in of the well on section 13, 20-14, the Union Oil company

are beginning drilling in the field which promises to be carried on in no meagre extent, as the company has acquired large holdings of land for the purpose. With the Union Oil company coming into the west end of the field it will be but a short time before the producers in that section will be afforded an outlet for their product, even if the Standard people do not establish a pumping station to their tank on section 6.

Without any warning, and to the annoyance of the operating companies in this field, the railroad company is and has been refusing to sell drinking water to anybody not a resident in the town proper, on the ground that they lack the necessary facilities to supply all. It would seem that water at 25 cents a barrel ought to be a good investment, even for the railroad company, and that they would make provision to supply the increasing demand, especially to the operating companies who are working on its land, and from whom they solicit the oil at 20 cents per barrel. There is plenty of oil at 20 cents but no water at 25 cents.

#### KERN

The Piedmont, on 29, 28-28, is about to drill a number of additional wells.

The Associated is now putting the finishing touches on the roof of its big reservoir at the Kern River field.

The Vesta has completed its seventh well on section 31, 28-28, Kern River district, and now has that well on the beam.

The Sterling has finished the excavation for the immense reservoir which it is erecting on its property at the Kern river field.

President Goldsby of the California Combined Oil company was in Bakersfield this week paying up all claims against the company.

The Potomac Oil company is abandoning the use of air compressors in working its wells, and will return to the former method of pumping.

The Kern River Oil company has completed well No. 9. The company has seven wells on the beam, several of which are extra good producers.

The Petroleum Development company, which operates on sections 2, 3, 4 and 8, 29-28, on 18, 28-28, 12, 28-27, and 23 and 24, 28-27, at Kern river, is again drilling on its property.

The Nob Hill and the East Puentea Oil companies, both on 4, 29-28, at Kern River, are each drilling an additional well. Each company has already a number of wells in operation on its property.

The Southern Pacific is now erecting three large storage tanks on its property near the Phoenix shops, about a mile from the Oil City yards and depot. The tanks are of the railroad's standard capacity—55,000 barrels.

It is reported that the Southern Pacific will shortly begin work on two more tanks on the McKittrick's grounds at McKittrick. The location was surveyed some time since and the company is now proceeding with the work.

The Kern River Oil company has let a contract to A. B. Canfield to drill another well on its property at McKittrick. H. B. Guthrie has also entered into contract with the Southern Pacific to drill one or more wells on its property in the same field.

The Sterling Oil company is about to drill four new wells on its property at

Kern river, on 21, 28-28, and is now building foundation for the rigs. A new boiler plant is also about to be installed. The company is already operating a number of wells and is a shipper.

There are now two or three rigs pioneering it in the country on the Carissa side of the Coast Range, several miles to the westward of McKittrick. The surface indications of this locality are excellent and several discoveries have been made very close to the surface.

The officials of United Oil company, formerly the Stratton property in Midway-Sunset Oil Field, have returned to Chicago from the field and report favorable as to the outlook for that section. They intend to build tanks and put down a number of wells at once and have oil for the pipe-line now building.

The Fulton has landed its casing for well No. 2 in clay at a depth of 900 feet and has ninety-two feet of rich oil sand. The casing was perforated on Thursday. The well is a wonderfully fine producer. Trouble from boulders has been met with No. 1, but this will be shortly overcome. Well No. 3 is down nearly 700 feet.

The Chico has reached the 1,500-foot level with the drill and will shortly resume drilling. The quantity of water in the hole makes it difficult to determine the exact extent of the strike recently reported, but enough has been learned to satisfy the company that a high-grade product has been struck—probably a thirty-gravity oil.

J. R. Walters, driller at the New York-Pacific, an oil company located on section 4, 10-23, nearly four miles east of the Chico, reports that the drill is now down over 350 feet and is now working in the natural formation. The wash formation is unusually deep at this point,

but they are now encountering about the same strata as are found in the developed country to the north.

The Sea Breeze Oil company, in the southwest quarter of section 6, McKittrick district, has resumed operations upon its well, on which upon the discovery of oil about a year since work was suspended. Mr. Guthrey, the superintendent of the McKittrick Oil company reports to that company: "They are bailing the well. It shows up better than I expected. Oil is very lively for having stood so long in the well. I am very favorably impressed with the showing."

The recent fire at the Pacific Refinery plant near Oak street resulted in damage to the extent of \$13,786. The losses have been footed up and the above indicates the result. The company will resume at once and dispose of such raw material as is on hand. Clarence Berry, one of the large stockholders in the company, is expected home from Alaska in a month or six weeks and on his return a meeting will be held and definite plans made to rebuild and increase the former capacity of the plant.

J. A. Andrews, secretary of the Sunset Coast Oil company, operating in the Midway district, is in the city and has located the property of the company on 25, 32-23. He has been examining the ground in company with William L. Smith, one of the largest stockholders in the corporation. The company has now one well completed near the Altoona Midway and it is expected that when Messrs. Smith and Andrews submit their report to the owners of the company in the East a course of active development work will be commenced.

The Producers' Oil company, Guaranteed, a corporation composed of Fresno people, has applied to the land office at

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Bakersfield and McKittrick, Cal.



Vialia, for patents on the Maria Rosa, Dewey and Boust placer mining claims situated on the SW $\frac{1}{4}$  of section 22 and the W $\frac{1}{4}$  of 23, 32-23 in the Midway district. The company, says the Californian, has been located on these lands for the past two years and has erected a large number of rigs but has confined its work to the assessment required by the United States law. E. J. Boust, well known in Bakersfield and formerly deputy sheriff at Midway, is the manager of the company. The company has property also in Fresno county. It has never done any work beyond the required assessments at Midway and it is presumed that it is the intention to proceed with development work and that the assessment is being levied for that purpose. The properties of the company adjoin those of the Mountain Boy, Bay City, Dixon, Stockton, Midway, San Francisco and Mt. Diablo Oil companies and close to those of the Chancellor-Canfield Oil company.

#### MONTREY.

The Combined Oil and Land company have finished a bad fishing job on their San Lucas well and are now going ahead. Well is down about 400 feet.

#### SAN MATEO.

The San Mateo County Oil company, according to late reports, are down to 1,650 feet.

The Pilarcitos Oil company have had some difficulty lately with their well, but are again making ordinary progress.

The High Gravity Oil company pulled their small casing and are under-reaming in order to put their big casing to a lower depth. They report good indications.

Mr. J. E. Kerr, who is drilling several wells in San Mateo county, has returned after an absence of several weeks in the East, and will begin active work in the drilling of new wells as soon as the present wells are completed.

The Guiberson company are working under some difficulties on their deep well and are now using three-inch pipe, with drilling tools to fit same, in order to sink their well as deep as possible. It is reported that they will immediately drill twenty to fifty shallow wells to get a production of high grade oil for which they have been offered a long time contract at several dollars per barrel. Their oil is 50 gravity or better.

C. W. Dickinson, of La Crosse, Wis., who is largely interested in San Mateo county properties, spent several weeks on the lease of the Wisconsin company and has now returned home. He is very enthusiastic as to the possibilities of San Mateo county, and he and his friends have already raised several thousand dollars for the development of some property that he has acquired in connection with the Wisconsin Gold Bond Oil company.

Peter Holmes, superintendent of the companies being operated by J. E. Kerr, has made the best record in the entire field, if not in the State when the difficulties of drilling are considered, in his work on the Paxton well, which was first let by contract to Al. Segnine for a depth of 800 feet. Mr. Segnine got in about 500 feet of 9 $\frac{1}{2}$ -inch casing and found it impossible to put in any more and finished his contract with 7 $\frac{1}{2}$ -inch. Mr. Holmes was put on the job and he withdrew the 7 $\frac{1}{2}$ -inch and also the 9 $\frac{1}{2}$ -inch and then lowered 11 $\frac{1}{2}$ -inch about 100 feet and though in unusually difficult caving formations, succeeded in lowering the 9 $\frac{1}{2}$ -inch casing to a depth of 1,230 feet, at which point a production of five or six barrels of 52 gravity oil was encountered. Mr. Kerr not deeming this production sufficient to warrant placing the well on the pump, 7 $\frac{1}{2}$ -inch casing was placed from this point and is now down to exceed 1,500 feet. Mr. Kerr

and practical oil men believe and state that there is no more thoroughly honest, competent and hard working oil man in the State than Peter Holmes.

#### SANTA BARBARA.

Articles of incorporation of the Mount Solomon Oil company were filed last week. The incorporators are Peter Tognazzini, of Cayucos; Henry Brunner, of San Francisco; Anton Tognazzini, of San Luis Obispo; S. A. Dana, Nipomo, and D. D. Barnard, of San Luis Obispo. The above gentlemen are named as directors and together with Fred Kronenberg, Jr. have paid in \$100 each on a capital stock of 150,000 shares of \$1 each. The papers were signed in San Francisco on June 9th. It is presumed the company will operate in the L. M. Kaiser land which joins the Newlove ranch and lies east of the Pinal company's land. The Kaiser asphaltum mines are on this land. Mr. Kaiser is now in Mexico and the property has passed into other hands. Mt. Solomon, from which the company probably takes its name, is close by on the Newlove ranch.

#### SANTA MARIA.

Because of the wonderful No. 3 well of the Pinal Oil company, said to be the greatest oil well in the State, from which an eight-inch stream of oil spouted continuously for more than an hour on June 5th, to a height of 100 feet, the Brookshire Oil company, owners of the adjoining tract, has withdrawn its stock from the market for the present. However stock will be issued to stockholders at the former price, 35 cents, till 3 P. M. next Monday, June 15th, each stockholder being entitled to purchase one and a half shares for every ten shares he owns. When the amount of stock so arranged for is exhausted the price will be placed at 50 cents a share. The Brookshire has been delayed in beginning operations by the difficulty of securing a sufficient supply of water, but we understand that that has been overcome now and work will commence in earnest on Monday. Pat Moore is president of this company and a good deal of stock is owned by Arroyo Grande people, who are somewhat excited and jubilant over the fact that Pinal's great No. 3 is very close to their territory.—Arroyo Grande Herald.

In speaking of the Pinal well No. 3, recently brought in the Santa Maria Times says: "With a rush and a roar the seething column of oil flew out of the casing to a height of one hundred and fifty feet: Continuing for one hour and seven minutes, this wonderful oil well flowed upwards of four thousand barrels of the black fluid—bathed the country, flooded the lowlands, and created a scene such as can only be pictured by those who witnessed it. The dry creek-beds became rushing torrents, and lakes of oil formed where before had been nothing but dry, rocky soil. Two horses which had been hitched in a ravine near by struggled helplessly and were drowned in the lake of oil. Workmen, in a frantic endeavor to stay the course of this phenomenal outburst, bent every energy to the construction of dams, and at last, after many hours of strenuous toil, were successful in corraling the larger portion of it, which stands in the improvised reservoir to a depth of twenty feet. The well, of course, is not a constant spouter, but is so sensitive that every time operations are resumed it will pour forth its fury in a black cloud of oil, drenching everything within reach and driving the workmen to a safer retreat. The territory adjacent to the Pinal property is being rapidly and quietly negotiated for by those who realize the immensity of the gusher, and unlimited capital is being advanced in the endeavor to secure as much of the land as possible. That means something. It means that this is to become the greatest oil producing

section in California, if not in the United States of America, and that in the very near future."

#### WYOMING.

The Atlantic and Pacific company transported a few tanks of large capacity this week to their recent strikes on sections 10 and 22.

The Jager Oil company have their new rig on section 12, 15-118 completed and will shortly commence drilling. It is constructed near the site where they brought in a paying well last season.

R. S. Spence and others are sinking a test well about ten miles below Randolph, near to the famous ranch of Gus Sprouse, who is reported to have struck a good flow of oil there several years ago, while boring for water.

The Belgo-American company has several thousands of acres of oil lands lying between Laramie and Evanston, Wyo., the land being scattered among the districts showing the best oil bearing properties in the state. The company placed on deposit at Laramie for the use of its agent \$200,000 to be used in development work on the company's properties. Plans were arranged for the sinking of nearly 100 wells and the work of drilling these has already begun. J. H. Dobell, the company's Wyoming manager, says that the company has directed him to make arrangements, if possible, with the Union Pacific, Fremont, Elkhorn and Missouri Valley or the Burlington railroad to lay sidetracks or spurs to the company's properties. If arrangements with these roads cannot be perfected then he is to construct a pipeline to the nearest point at which these roads can be reached.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

#### Calked With Asphalt.

The new stretch of main canal at Dominici's gulch proves all that it was expected to be, carrying the water in good shape. It cost the district only about \$2,000 and for good and all does away with a defective side-hill section that would always have been a menace and a source of expense.

While the water was out of the flumes, during the two weeks or more required to excavate the substitute section, the flumes dried out to such an extent that those at Salter and Warner gulches leak like sieves. Of course, they would swell and become water-tight in due time, but the pliers rest on a sand formation and the leakage imperilled them. So it has been decided to calk the interstices of the floor boards with asphaltum, as was successfully done in Turlock District under like conditions.

#### Office Removal.

The office of the Caribou Oil and Mining company has been removed from the Nevada Block to 330 Pine street, room 36, San Francisco.

H. H. HART, Pres.

W. H. SIGOURNEY, Sec'y.

D. M. KENT, Asst. Sec'y.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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## ORIGIN OF PETROLEUM.

### Geologist Plotts of Whittier Criticises the Conclusions of Government Expert.

#### Reasons For the Belief That Petroleum Is Derived From a Small Proportion of Carbonaceous Matter Deposited On the Ocean Floor.

The recent issue of a U. S. Geological report on the occurrence of, and production of petroleum in California, brings again to our attention how little we know about the possible extent of our petroleum fields, and how utterly valueless are the governmental reports of all countries on this subject. An agent, known as a geologist, makes a flying visit over a large extent of country and makes a report in which he tells all he knows, and a good deal more, besides saying a lot of things that don't mean anything. If people read it they look wise, but don't say anything, and keep on spending hundreds of thousands of dollars in oil exploring in the most unpromising localities, and the "geologists" who have gained much prestige through virtue of their appointments as official mineralogists, rake in good fees (sometimes when they are still in the pay of the state) from ignorant people who wish to be assured that their lands are rich in petroleum. Subsequent results are about the same as if the land owners had employed some "uncle" with the traditional forked limb or the modern sharp with some boxed device. Now there is good reason to believe that some few very successful oil operators could give us pointers that would assist us in our search for the greasy fluid, but they find it more profitable to keep such knowledge to themselves.

In the meantime, the best way for scientific men to gain real knowledge on the subject is to investigate the origin of petroleum. A thorough investigation of the occurrence of petroleum and coal in strata of the earth's crust, will, I think, convince us that all carbonaceous products have had a similar origin, they being frequently found in the same horizon, and are dispersed throughout the strata in the same general manner and quantity.

It must soon become evident that the contention of Prof. Huxley and other physicists, that coal is derived from vegetation that was preserved in beds where it grew or drifted, is entirely untenable, and has little evidence to support it. On the other hand, there is abundant evidence that all carbonaceous products of much value were derived by distillation of the small per cent of vegetable matter that was preserved throughout thousands of feet of strata, by the internal heat of the earth, and the subsequent concentration of the volatilized fluids into fixed liquid as petroleum, or its crystallization into coal higher up in the measures, according to the conditions that prevailed in the strata where the concentrated carbonaceous matter was forced by

the heat in the subsiding shales below.

Prof. Huxley based his conclusions mainly on the impressions of forms of vegetation in the coal, and especially in the shales above and below the coal beds. Now, observations of those fossils in our domestic coals show that they are quite as numerous in the shales as in the coal, and much more distinct. The reason for this is, the vegetable matter that was mingled with the mud that formed the shales left their impressions throughout the strata, and after the subsidence ceased, the volatilized carbon, which had blended with the softest and most yielding stratum, greatly increased their bulk, and as they crystallized, the fossilized forms were left naturally distorted, which is precisely as we find them.

Prof. Huxley regarded each stratum of coal as representing an age or period of growth and accumulation of vegetation on the ground in which it grew; following which there would be a subsidence of the region under the ocean and a deposition of mud over it, which latter would form the soil in which a subsequent accumulation would grow when the region again emerged, thus forming another stratum, etc. He then cites instances of certain coal measures containing as many as 80 or 100 separate strata.

Now, as each period of subsidence would require an age of possibly millions of years, and as each single subsidence of a large region results generally in an accumulation of more than a mile vertically; (cases of thirty miles are cited), and furthermore, as no known conditions would preserve such accumulations from decay pending their submergence under the ocean, such an hypothesis is not very logical.

The only way that carbonaceous matter in vegetation can be preserved from decay is by deposition on the bottom of a body of water, to be covered with an accumulation of sediment, but the petroleum of California is found mainly in land formed strata, or in strata formed close along the shore, as is evidenced by the mingling of short beds of all kinds of wash. Boulders, sand, gravel, shale and conglomerate blend into each other without continuity, and while some spots represent marine forms, showing that there was some submergence, the bulk of the strata was undoubtedly formed precisely as the valleys of Southern California are now being built up by the wash from the mountains depositing detritus from streams that are constantly changing their courses.

The fact that carbonaceous pro-

ducts are found in both ocean-formed and land-formed strata, would seem to prohibit their formation by any process except by natural distillation. But the best evidence in support of this theory is the fact that all strata above the petroleum-containing horizon contain minute quantities of carbon. This can be demonstrated by placing a quantity in a retort and heating it. The best results will be obtained from cavings taken from wells several hundred feet below the surface, or from tunnels. Deep cuts will do if only the hardest bits of shale are selected, as such are the best preserved. But no gas whatever can be obtained from shales that lie below the oil horizon, which varies much in thickness. In the Puente hills the strata in which traces of oil occur, amounts to about 4,000 feet.

Prof. Eldridge, of the U. S. Geological Survey, reports two oil horizons in the Puente hills, which would be important if true, but there is not and cannot be two oil horizons in the same locality. Prof. Eldridge really did not have time to make investigations of much value, and having noticed the flexures on the flanks of the hills, where the strata overlap with a non-conformity of about 2,000 feet generally, probably considered them at two distinct horizons.

Most geologists speak of primary and changed rocks, as if it were possible to classify them by these two terms. The distinction they wish to convey is, probably, between rocks that have been subjected to heat enough to melt their silica and those that have not, but there are a great number of changes that strata undergo as they become subjected to different degrees of heat owing to the accumulation of their covering. The first is the loss of their water at 212 degrees, which occurs at the present time at a depth of generally about two miles, the next is the melting of their carbon at different depths, the first being, of course, the purest.

You can generally tell visually if strata has been subjected to the carbon-eliminating heat by its color and general appearance if you acquire some practice in this interesting line of investigation.

The formation of carbonaceous products has been going on ever since the first growth of vegetation, which period probably covers hundreds of millions of years. The first half of this period is supposed to have been vastly more prolific in vegetation than the last on account of the large proportion of carbon and water in the atmosphere, and the shales formed in that period would be richer in carbon, and if their subsidence ceased at an early period, so that the accumulation was not so excessive as to carry part of it to a depth where the heat would volatilize other substances more refractory to mingle with it. The result would be a valuable product of moderate richness, with an extent, of course, in conformity with the lateral extent of the shales.

The petroleum and coal of Pennsylvania, West Virginia, and adjacent states result from such early formation, the anthracite coal of Pennsylvania being probably the

oldest coal known.

The formation of coal instead of petroleum may be owing to the absence of sandstone, or other porous strata of sufficient quantity to absorb the gases, or rather, the volatilized fluids, (for gas in its expanded state could not obtain at such pressure as would prevail miles under the earth's surface.) In the absence of such porous strata, in which fluids might remain long enough to become "fixed" as petroleum, the almost pure carbon would halt in a body in the soft shales with which it was blended when subsidence ceased. The carbon at this point might have properties that would cause it to crystallize, whereas that portion which had lodged in the porous strata would be retained by it until the slightly more refractory substances had overtaken and mingled with it and caused it to remain and become fixed as petroleum.

One of the circumstances that bear out this theory is, where coal occurs above the petroleum, (and it never occurs below), there is no porous stratum in the one or the two thousand feet between the two, and the porous stratum that contains the petroleum is quite limited in thickness, and where there is an abundance of porous or gritty strata like in the California oil fields, there is no sign of coal.

Now, in connection with the foregoing, we must consider the enormous wastefulness of nature. The greater part of the carbon that is volatilized by heat in nature's laboratory, no doubt escapes to the surface on account of unfavorable conditions for retaining it. Coal, for instance, is susceptible of deterioration or preservation in proportion to its age.

Anthracite has resisted well the action of the elements during the erosion of its covering, because it had become hardened by long ages of pressure before the water and air obtained access to it. There is good reason to believe that the lignites may have been as rich in carbon as the older coals, but they did not have time to become matured on account of the comparatively rapid erosion of their covering, and as soon as the water and air could reach them, they rapidly lost some of their carbon.

To sum up, I contend that, 1st.—Practically all coal and petroleum were derived from the small proportion of carbonaceous matter that all strata contain when deposited on the ocean floor.

2nd.—That we should classify all strata in accordance with the heat to which they have been subjected by the thickness of their covering.

3rd.—That the age of strata in which petroleum and coal occur, does not necessarily bear any relation to the age of the stratum from which those products were distilled, and such products may occur in strata of any age except formations so recent as not to have had the necessary time for sufficient subsidence, and subsequent emergence to within reach of our tools.

4th.—That those products in their occurrence, do not necessarily conform to the strata in its continuity.

WILLIAM PLOTTS.

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**ASPHALT A SUCCESS.**

Used in Visalia Nine Years Satisfactorily For Pavements.

In leaving the depot of the Southern Pacific company and walking up the street, the visitor to Visalia is at once impressed with the fact that they have a good pavement there. The street is clean and well cared for and there are no unsightly ruts, cracks or uneven spots, such as abound in the paved streets in other cities. The pavement shows that it was a good job when it was first put down, and that it is going to last many years yet—in fact at the present rate of wear there is no reason to believe that the pavement will not last fifty years.

**BELIEVE IN ASPHALTUM.**

Captain Burns, the city clerk, is an enthusiast about those paved blocks. So is ex-Mayor Harry Levinson, and the present officials are equally firm believers in asphaltum. They would have nothing else.

"These streets were paved nine years ago," said City Councilman Henderson, "and they are today better than they were when the pavement was first laid down. This, too, in spite of the heavy traffic. When the contractor was putting the asphaltum down, some people thought that it was too soft and the property owners in one block had the consistency of the material altered, so that it would be stiffer. Well, the soft pavement has gone on getting better and better all these years, and the stiff pavement has cracked and has

had to be repaired. We are very much pleased with the whole work. It costs us about \$60 a month to keep the streets clean. We sprinkle the paved streets twice a day and they are kept clean by a man who goes over them with an old cross-saw. The cleaning is done in the daytime and the street dirt is not allowed to accumulate."

City Clerk Burns said the pavement cost when it was put down nine years ago 25 cents a square foot, he believed, but at that time the asphaltum was bought in open market. It was probably the best asphaltum that could be obtained therefore, and certainly shows that it was excellent material and was excellently prepared. As the officials there said, "It was all in the cooking."

**STANDS THE HEAVIEST TRAFFIC.**

Ex-Mayor Levinson expressed himself in almost the same words as Mr. Henderson and so did Councilman Smith, while Mayor McPhail declared that it was the best pavement that could be devised.

"How does it stand the traffic?" was asked of Mr. Henderson.

"We have five trucks in this town," he replied, "that are constantly doing a good hauling business to and from the railway, and the best answer to your question is to go and look at the block. It shows no signs of wear at all, and is actually better to-day than it was the day, nine years ago, when we laid the pavement down. In this hot weather it is just soft enough to let a tire leave an impression, but it is elastic at all

times and in cooler weather the surface is firm and hard."

This is precisely the same as bituminous rock in warm weather. So it is not an advantage or a disadvantage of asphaltum, as the Visalia gentleman pointed out.

**HOW IT WAS LAID.**

A short time ago it became necessary to take up a square of the old pavement and two sections of it were saved. They were seen at the engine houses and show that the system under which the asphaltum pavement of Visalia was laid is entirely different from any specification that Fresno has ever had. First, the asphaltum was mixed with two-inch gravel, the mixing being done while the material was hot. A thickness of this was laid on the prepared ground—the ground having been graded to shape. This thickness was ten inches as it was laid. When it was down a heavy steam roller was sent over it and the mass was rolled down from a thickness of ten inches to a thickness of six inches. It is firmer than the average rock, but more elastic. On this foundation of asphaltum and two-inch gravel a binder course was laid of hot asphaltum and smaller gravel, and on top of this was laid a top or surface course of clean sand and asphaltum. The whole pavement was eight inches thick when completed and finally rolled for use. It goes to show how fine a piece of work it was, that the total subsidence or sinking under the packing of traffic, together with the wear, though the latter is infinitesimal, is by measurement of the sec-

tion spoken of, scarcely a fifth of an inch.

**PRESENT COST.**

While the original cost was, in 1894, per square foot 25 cents, it was said that owing to the lower price of asphaltum now, the cost on the specifications on which the original work was done, would probably be 15 and 16 cents. Not a pound of Portland or any similar cement is used. Sidewalks that have been of the same material have proved, as Mr. Henderson pointed out in one instance, as the party was walking up the street, actually of greater satisfaction than artificial stone.

**Wyoming Oil Companies.**

We can furnish you nice folders with the map of Uinta county oil fields on one side, and on the other whatever advertising matter you may desire.

We have half-tone cuts of the field which can be used in the folder free of charge. On the map your property will be shown in colors.

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HAS ESTABLISHED AN AGENCY FOR THE  
**PURCHASE AND SALE OF**

# PROVEN OIL LAND

On account of the very many inquiries made upon us from parties wishing to have us aid them in different capacities in regard to buying or selling oil land, located in the different oil districts, the publisher of the PACIFIC OIL REPORTER has been compelled to establish a department where parties wishing to buy or sell oil land can have their inquiries answered and proper attention given to the requirements of an oil land selling agency.

No one need apply to this department for any aid in the sale of land unless said land is located in the proven oil belt, and unless the land offered for sale can show a clear title. The same conditions will be required for lands offered on lease.

In regard to purchasing land we wish to deal only with principles, and have no time to waste on "agents" who first hunt up a proposition and then "hustle" for buyers.

Parties wishing to invest in small or large holdings of good oil land can choose among choice pieces in several fields. We have now on hand a choice tract which has on it a good producing oil, and is surrounded by producing properties.

We will sell land and will assist in the organization of oil companies, seeing that they are started on the right track, and placed in a condition where they can go ahead and develop their properties successfully.

This department will have nothing to do with wildcat propositions or with companies that are over-capitalized or are organized simply to sell stock.

## WE DEAL ONLY WITH PROVEN TERRITORY

If you have Oil Lands for Sale list it with us as soon as possible.

If you are thinking of investing in Good Oil Land and do not wish to get "Stuck" on worthless and high-priced land inquire of us.

### GREAT BARGAINS IN COALINGA LANDS.

For Particulars Address

## OIL LAND DEPARTMENT

Pacific Oil Reporter

318 Pine Street,

San Francisco, California.



**In New Zealand.**

Dr. C. T. Deane, secretary of the California Petroleum Miners' association, is in receipt of a telegram from New Zealand to the effect that drillers for oil in that field this week "struck a gusher." The capacity and depth of the well was not stated. This is the first oil well in New Zealand. An oil field there will be of great benefit to the California field, as a fuel base of supplies is greatly needed there for steamers.

During a heavy thunder storm lightning struck a 30,000 barrel oil tank on the Deckard farm four miles north of Findlay, Ohio. The tank was full of oil which ignited, and in order to prevent an explosion a small cannon belonging to the Buckeye Pipe-Line company was brought out from Cygnet and with it eight holes were shot into the tank, thus letting off the oil.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, June 17th:

**CARIBOU.**

450 at	90	\$ 405 00
150 at	95	142 50

**CENTRAL POINT CON.**

100 at	75	75 00
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**CHICAGO CRUDE.**

400 at	80	80 00
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**HOME OIL.**

100 at	2 85 (S 90)	285 00
1,550 at	2 85	4,417 50
50 at	2 90	145 00
200 at	2 95	590 00
1,000 at	3 00	3,000 00
800 at	3 05	2,440 00
1,200 at	3 10	3,720 00
100 at	3 10 (B 30)	310 00
100 at	3 10 (B 5)	310 00
2,500 at	3 15	7,675 00
200 at	3 15 (S 90)	630 00
1,500 at	3 20	4,800 00
100 at	3 25 (B 90)	325 00

**INDEPENDENCE.**

4,000 at	16	320 00
6,000 at	17	1,020 00
3,000 at	18 (B 90)	540 00
1,000 at	18	180 00

**KERN RIVER OIL.**

25 at	14 00	350 00
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**LION.**

3,200 at	06	192 00
500 at	07	35 00

**MONARCH.**

1,500 at	57	855 00
100 at	59	59 00
2,100 at	60	1,260 00

**MONTE CRISTO.**

500 at	1 10	550 00
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**OCCIDENTAL OIL.**

5,400 at	22	1,188 00
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**OIL CITY PETROLEUM.**

1,000 at	32	320 00
----------	----	--------

**PEERLESS.**

50 at	14 00	700 00
50 at	14 50	725 00

**PITTSBURG OIL.**

21 at	45	9 45
100 at	47	47 00

**SOVEREIGN.**

1,000 at	40	400 00
1,020 at	41	418 20
100 at	42	42 00

**TWENTY-EIGHT.**

50 at	4 20	210 00
-------	------	--------

39,216 Shares, Amount, \$38,770.65

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma	1.45	
Apollo	.40	

Asso. Oil Co Stk. Tr. Certificates	25
Aztec	.80
Bay City	.20
Bear Flag	.06
California Standard	.15
Caribou	.95
Central Point Con.	.75
Chicago Crude	.20
Clairemont	.32
Esperanza	.80
Fauna	.05
Four	.74
Fulton	2.90
Giant	.20
Hanford	110.00
Home	3.10
Homestake	2.50
Imperial	.16
Independence	.17
Junction	.21
Kern	5.25
Kern River	14.00
Lion	.06
Monarch of Arizona	.57
Maricopa	.10
McKittrick	.12
Monte Cristo	1.00
Nevada	.50
Occidental of West Va	.21
Oil City Petroleum	.31
Peerless	14.00
Petroleum Center	.05
Pittsburg	.47
Piedmont	.06
Reed Crude	.36
S. F. & McKittrick	2.75
San Joaquin O. & D.	5.50
Senator	.65
Shamrock	.24
Sovereign	.40
Sterling	3.05
Superior	.04
Thirty-three	8.00
Toltec	.18
Twenty-eight	.42
Union	64.00
United Petroleum	118.00
West Shore	3.50
Western Petroleum	.17
Wolverine	.57

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7:30	A. M.—*BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.
9:30	A. M.—*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11 a. m.
9:30	A. M.—*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
4:00	P. M.—*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
8:00	P. M.—*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\* Daily      † Mondays and Thursdays  
° Tuesdays and Fridays.

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## MAPS OF THE KERN RIVER and COALINGA OIL FIELDS

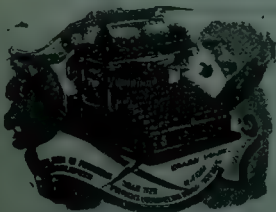
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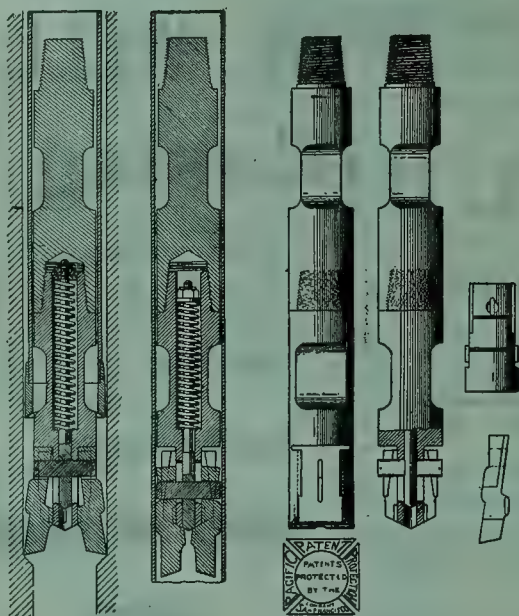
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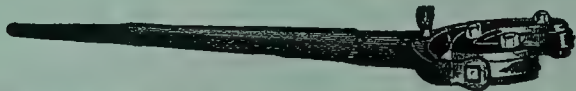
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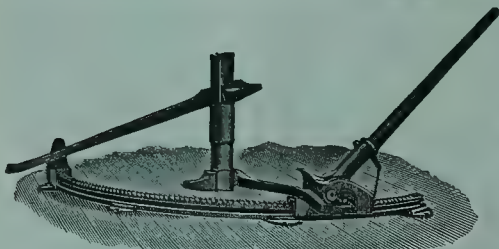


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# PACIFIC OIL REPORTER

VOL. 4. No. 34.

SAN FRANCISCO, CAL., SATURDAY, JUNE 27, 1903.

PRICE, TEN CENTS.

## OIL WELL SUPPLIES.

### An Immense Manufacturing Plant About to Be Established.

#### The Presidency of the New Company Has Been Offered to R. H. Herron, Who Now Operates Six Oil Well Supply Houses in California.

There is now a probability so strong as to amount almost to a certainty, that there will soon be established in San Francisco an immense plant for the manufacture of oil well supplies.

At present the R. H. Herron Co. of Los Angeles has six stores in the different fields—one each at Los Angeles, Coalinga, Bakersfield, Sunset, San Francisco and McKittrick. The branch at Sunset has just been opened up.

The other principal dealers are the National Supply company and the Union Oil Tool company, at Los Angeles. The National has important branches at Los Angeles, Bakersfield and Coalinga.

At present these three firms control the oil well supply business.

The first to open in this business on this coast was the R. H. Herron company.

The new concern to be established has offered R. H. Herron the presidency of the company, and it is said that Mr. Herron is considering the proposition favorably. If he accepts he will bring from the east all the men who have been in his employ for years at this kind of work. The company would handle only goods of their own make, and would not handle any eastern goods.

It is stated the company has already secured an option for a site for the works in San Francisco, though just where is at present a secret.

If this project goes through successfully, and if Mr. Herron accepts the presidency there is liable to be lively times in the oil well supply business.

The new company proposes to have its supplies made and put on the market before the close of the present year.

#### Will Oil Roads.

Supervisors Davison and Lewis of Stanislaus county have united in the purchase of an oil-tank wagon, with Glover sprinkler, for work on the roads of their respective districts. The wagon will be shipped to Oakdale at once and Supervisor Lewis will oil the main thoroughfares of that important town. Supervisor Davi-

son will use it later. He expects to oil the main thoroughfares of Ceres and of Turlock this fall.

The Glover Sprinkler is de-

## CALIFORNIA MIDLANDS.

### Securing Rights of Way from the Minarets to San Francisco.

The main line of the California Midlands railroad will pass between Modesto and Turlock, crossing the San Joaquin river at Grayson. A branch will run to Stockton.

This is the announcement given out by Al. Baker, right of way man, now obtaining rights of way for the Stockton branch.

Ex-Attorney General W. H. H. Hart, who made a million or more out of the Blythe case, is the promoter of the California Midlands railroad enterprise. It was pub-

will be a competitive road as to all territory contributory thereto, and that the road will be commenced as soon as rights-of-way are obtained, and you are hereby authorized to secure rights-of-way for company until further orders.

Yours respectfully,

CALIFORNIA MIDLANDS R. R. Co.  
By W. H. H. HART, President.

Contracts are being secured on the understanding that they will become void in one year unless work is commenced before that time, but it is said it will be undertaken within four months.

A very large steel plant is in contemplation, which will use vast amounts of oil from the Kern River field. A process has been perfected by means of which oil is successfully used in the reduction of iron ore.

General Hart states that the enterprise has financial backing, and that success is assured.

## MAKES CHEAP OIL

### A European Claims to be Able to Make One Cent Oil.

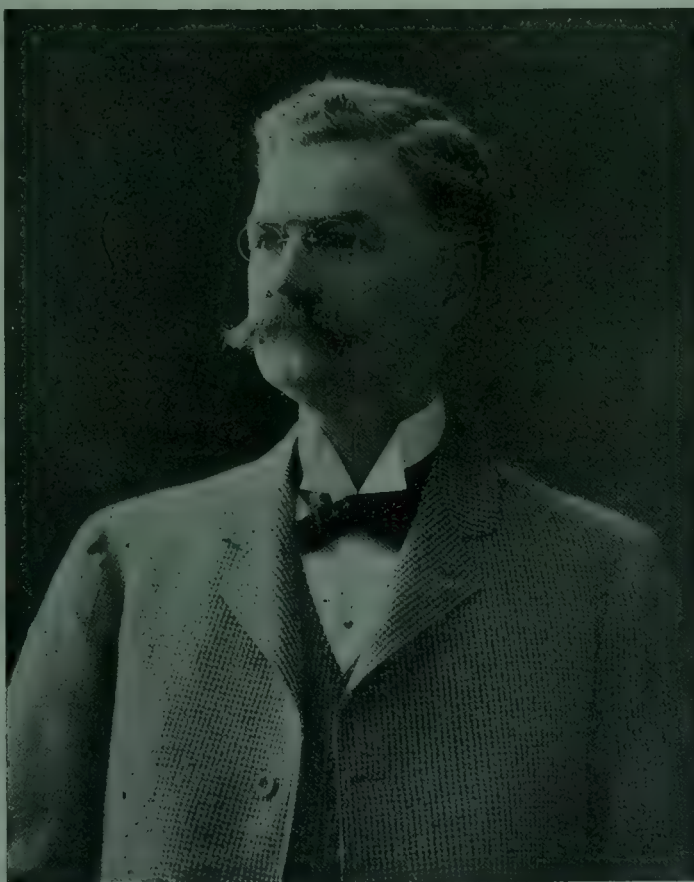
Charles Fitz de Morgenstern, who arrived in New York from Europe a few weeks ago with a box of chemicals by means of which he says he can make artificial petroleum at a cost of 1 cent a gallon, is of French descent and he is also connected with the family of James II. of Scotland, he says. Educated as a physician, he also took several courses in chemistry. He exhibited certificates from the University of Brussels and of Bonn and from an English school. His home is at Diano Marina, Italy, not far from Monte Carlo.

He said that two years ago he began the experiments with a view of obtaining a fluid which could be used in motor cars, and quite by accident he discovered the remarkable substitute for kerosene.

The inventor says the liquid is largely water and that its properties are imparted by the addition of a chemical salt, which is obtained from vegetable matter. The wick which is used in lamps filled with the petroleum substitute is coated with acetic acid.

"The new fluid," continued Mr. Morgenstern, "will burn with five times the light of ordinary kerosene and it will not explode under any circumstances. It has no flash test because it will not flash at any temperature. It is not adapted for use in motor cars because it gives forth no explosive vapor, but at the same time for heating and lighting it is all that could be desired.

"Once the world knows the value of my invention," he said, "the petroleum business will be revolutionized. The Standard Oil men will be amazed. They will want to kill me when they see what can be done. I would want at least a million dollars, for I was led to make this discovery because I wished to have money. I hardly know what I would do with a million, yet still I think I should have it if wealthy men organize a company."



R. H. HERRON

Who will probably accept the presidency of a new company which will engage in the manufacture of oil well supplies very extensively in San Francisco.

signed for the use of cold oil. It was invented and patented by a southern California supervisor and has been effectively used in that quarter. Of course, the cold oil process is more economical, directly at least, than the hot oil method; and it is claimed that it is fully as effective.

A recent report from Beaumont says that the Security Oil company, which acquired the Burt properties, has contracted for an additional 2,000,000 barrels of earthen tankage. This will make a total of 7,000,000 barrels of tankage by that company.

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lished recently that he had enlisted Eastern capital. Another report makes the California Midlands a branch of the Western Pacific, the enterprise attributed to Gould, which is to enter California through Beckwith pass. In this connection Mr. Baker exhibited in Stockton the following letter:

Al. Baker—Dear Sir: In reference to the California Midlands Railroad company being connected with any other road, I will say that the line was organized and will be constructed for the purpose of handling crude iron ores from the Minarets and the country around there and along the line of the road to tide water at the bay of San Francisco, and on the San Joaquin; that the road



## THE PETROLEUM EXPERT.

### How Valuable His Sciences May Be to the Oil Industry.

Portion of an Able Address Delivered Before the Petroleum Institute, at London, by Mr. D. A. Sutherland, a Successful English Operator.

#### UNDEVELOPED TERRITORIES.

That section of the duties which relates to the examination of an undeveloped property is highly interesting, but there is not time to dwell upon it. The expert is regarded sometimes as a sort of water diviner, who goes forth with a rod, and is able, without the assistance of well data or strata, to say—"Here, at this spot, sink a well 500, 1,000, or 2,000 feet, and within a foot of these measurements you will discover oil, and your well will yield 100 barrels of oil a day." This is not possible. The expert may be able to tell that there are satisfactory indications. He is, without doubt, the best man to tell you where to locate your well if the indications are clear, but there is no getting past the fact that only the actual drilling of a well can satisfactorily test the territory. The expert may save you thousands of pounds by preventing you drilling in hopeless ground, but he has not always got indications to guide him, and beware of following his advice unless he can explain to you the why and the wherefore of his decision.

Some of the best wells in some of the best territories were found purely by accident. There were no indications on the surface. This was notably the case at Spindletop, in Texas.

In this case, drilling operations were being carried on for a well of good water, and the discovery of the evil-smelling crude oil of Texas was at first only the cause of deep disgust and disappointment to the driller.

I can only advise the uninitiated to regard undeveloped properties as similar to undeveloped gold mines; possibly they are very valuable properties, but they are to be viewed necessarily in the nature of a speculation. Those of you who are speculators I would not discourage, because there is possibly no better speculation in the world than that which, when successful, results in "strikin' ile" and "strikin' it rich."

Whether the undeveloped territory be part of the producing property we have been examining, or one upon which no work has been done, the geological work will be much the same, only that in the former case it will be

possible to arrive at almost definite conclusions as to the exact depth at which oil will be found, and the extent of the area which may be set down in the report as proved oil-bearing territory, as against that which is doubtful or hopeless.

#### GEOLOGICAL EXAMINATION.

To resume my index. The expert must note how the petroleum occurs. In what varieties of strata, in limestone, in sand or sandstone, or in schisty clay or shale? How many payable strata there are, what is the nature of the intermediate strata, are the strata disturbed or regular, are there water strata or shifting sands or ozokerite, what the direction of the strata, strike and dip? He should not be contented by the descriptions he will find in the logs of the wells as to the strata passed through, but should see typical samples, which, in the case of every well regulated property, should be carefully preserved and labelled. Often the entries are entirely wrong, and were there time I could give many instances of this.

One of the most important items to note is the occurrence of anticlines and their domes, synclines or monoclines, which I have no doubt you have had carefully explained to you in the previous lectures. Do not be misled by the presence of an anticline well marked though it be, unless it has been proved to contain paying quantities of petroleum. The dictum of the geologist or stratigrapher who goes forth armed only with a clinometer and an ultra-scientific mind, doubtless well stored with palæontological knowledge, and able to state with certainty that this or that anticline is of the same geological age to a year or a day as that of some other which is highly petroliferous, has resulted, more especially in Galicia, in a profound scepticism as to the value of the geologist. Without a doubt the expert and the driller should work together.

Speaking with no inconsiderable experience I can testify to the great pleasure the prospector experiences in examining new territory, and in every clue he finds to enable him to determine whether his opinion can be favorable or otherwise. Every trace

of outcrop must be looked for, every stream or piece of available exposure on hillside or seashore be looked for; nay, more, it may be that he has to ride or trace back for five, ten, twenty or more miles to prove the correctness of his hypothesis as to the true direction of the oil belt or the axis of the anticline. To one who has worked in oil fields where the exposures of strata are few and far between, it is almost a revelation, as it is a pleasure, to go for miles and miles in the Rocky Mountain district and see the whole countryside a gigantic model of every imaginable type of geological strata, colored, too, in most cases, with brilliant red bands, alternating with brown and yellow to grey and white, on which he almost expects to find printed in vast letters the geological names, as though the whole range had been erected for some Titanic school of mines or petroleum institute of the past. More practical geology can be learnt in this district in a single month than from years of text books.

#### TYPES OF CRUDE PETROLEUM.

There is not time to describe in any detail the great variety of forms in which the original material, or crude petroleum, is found. As light oil or naphtha, it occurs in small quantities in more or less widely-distributed oil fields; in

the still lighter form of natural gas, it is largely used in some countries, such as Galicia, for the direct forcing up of oil, or in America, where it is used for burning or for producing power directly.

Many crude petroleum are easily refined, but those which contain more or less sulphur, such as Ohio, Ontario or Texas oils, require a more complicated process of refining. The petroleum of Russia is famous for the high quality of its lubricating oils. Some Roumanian and Galician petroleum contain much paraffin wax in addition to the other products. Ozokerite, or native wax occurs in the last mentioned country.

California and other thick oils, with what is known as an "asphaltum base", are entirely different in appearance and resemble thick tar; they would be rejected with scorn by the oil refiner who had no experience with them. They are known as maltha in America. Asphaltum itself in the more solid form may be distilled for oil, but is of greater value for other commercial purposes, such as street paving, waterproofing, or in the making of paints and varnishes. From bituminous shale, as mined in Scotland and France, a crude oil is obtained by distillation, which yields a naphtha, il-

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REFINING.

Having obtained the crude petroleum, the important chemical problems involved in its refining have to be considered. To form an opinion as to the value of the crude oil, the expert must know the quality of products it will yield. He may have to examine refineries in which he should note amongst details far too numerous to more than outline, storage capacity for crude oils, forewarmers (if any), capacity and type of stills, whether simple or continuous, condensers and condensing power, exhausters (if used), receivers, agitators for chemical treatment of the oil, and, if paraffin be present, the refrigerators for its removal, the wax refining plant, and possibly a candle-making one. He should note the pumps and pumping power, boiler power, storage for refined oils, arrangements of the whole plant in case of fire, and, quite as important as anything else, quality of the products obtained and working costs. As to the testing of the products in the laboratory, with determinations of specific gravity, fractionation, flashing point, viscosity, melting point, practical machinery tests, or calorific value, you will hear more in the course of the lectures, and for the same reason I am saved the necessity of dealing with the commercial application of the products for liquid fuel, oil lamps and stoves, in oil engines and the many other applications being found from day to day. The more petroleum is discovered, the more use we make of it, and its suitability for employment in hitherto unsuspected ways is not exhausted when we learn that the concentration of metallic ores by means of oil is looked forward to by some as an important factor in the British Columbian mining industry.

THE REPORT AND APPENDICES.

When the data bearing on the points I have enumerated have been collected, the expert must carefully focus the whole subject and draw up his report. The observations and descriptions, while not necessarily of high literary quality, should always be couched in plain English, and be thoroughly intelligible to the man in

the street. With the report should be handed a series of appendices, more or less necessarily highly technical, in support of his statements. In these will be included maps of the locality showing connection with railways or other means of transport, such plans of the property as can be obtained or he has time to prepare, detailed statements as to the area and terms of holding of each plot or section of the property, data as to the number of wells on each plot, and as to the individual wells in detail and any other information which he can collect as

management and control of the property may not be undertaken without a full comprehension of the local circumstances.

TRAINING AND EXPERIENCE OF EXPERTS.

I think it does not require me, after what I have said, to indicate the very wide general knowledge which should be possessed by the expert. His work more especially requires a thorough chemical training and practical experience in works-engineering problems in connection with mineral oils and petroleum, and in addition to being a chemist and technologist he

you can never eliminate, and that where one man will walk and see nothing another will see much, while a man who has had no experience in works will walk through them without learning anything, the experienced man will note every small detail almost at a glance, and will rapidly form the impression if everything is as it should be. There are tricks in all trades, and you must set an expert to catch an expert.

EXPERT ASSISTANCE IN MANAGEMENT OF PROPERTIES.

Whilst on account of the vastness of the subject and the mixed nature of my audience, I have enlarged upon the general points of what is, after all, only the preliminary duty of an expert, I wish to make it perfectly clear that in the case of the property he has examined being acquired, his duties should not end with the receipt of his report, but should continue, and his opinion be continuously sought in connection with the development and management. If the property was worth buying on his advice, surely his advice on its control must be of value. Directors of public companies who neglect to seek expert advice—they do not require to follow it, if they differ from it, when given—incur very grave responsibility in the fiduciary position they occupy towards their shareholders, and owing to the lack of interest or ignorance of the latter many a valuable property has been allowed to drift to financial disaster. In British industries in the iron and steel trades, in cotton, in beer, whisky, or tea, skilled expert assistance is ever recognized and utilized, and some of the directors have had some actual experience in the subject, but, with the exception of the very few who only serve to prove the rule, anyone seems good enough to be a director of a petroleum company, and yet there is probably no industry which requires so much skilled experience.

I have more than once pointed out that it is a mistake to suppose that skillful administrators either as directors or as technical men could not be found at home. The founders of the Scottish shale oil industry were the pioneers in the petroleum industry, and to-day

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the possible markets, cost of labor and fuel, and their supply, and any extracts from the laws of the country which he may find to have an important bearing upon the history. The extent and number of these appendices, which frequently have to include a detailed valuation of the property, vary according to circumstances, but in most cases they are necessarily much more voluminous than the report.

The object of all this labor on his part is to secure an absolute answer to any technical criticism, and to insure that the subsequent

should know something of practical geology, engineering, electricity, mining, surveying, drilling, refining and works management.

The wise expert knows best the advantages of an expert, and where he has any doubt as to his own competency he employs for the detailed work a surveyor, and electrician, an accountant or a lawyer, and provides with his clients that he has the right to secure such services if required, but it cannot be too strongly impressed upon you that the personal equation is a factor which

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there are skillful business men who have steered large companies through dark and troublous times, paying good dividends amidst the keenest of competition and under the hardest of conditions, where they have not found the oil ready to hand, but have had to distill it from shale, for which they have to mine. I speak from personal experience, as nearly twenty years ago I spent about half-a-dozen years in works where shale was mined, distilled and the various products were refined.

Full advantage should be taken by the directors of their expert's special experience. He should have access to the data arriving from the property, should make reports when and as he thinks fit to the managing director or to the board, and prepare a half yearly or annual report upon the progress embodying in it any suggestions which his experience in other parts of the world enables to place at the disposal of the local management.

It would be wiser to provide for his re-visiting the property from time to time, whether once or twice a year, so that he may keep in touch with the local management. In many instances, when the question of the selection of a manager arises, the board could be guided by his experience in selecting the best man. A few moments' conversation in such a case would be better than many testimonials.

#### QUALITIES OF THE EXPERT.

Of the general qualities of the expert who gives up much of his time to field work, it is important that he should be of good health and able to rough it, able to grasp readily the salient features, and to focus the various points as they arise, and to represent them in their true proportion. In all cases at home or abroad his work must be carried out so that he need never hesitate to go into the witness box and be cross-examined by skilled counsel as to the chapter and verse upon which he has based his opinion. He has to be wideawake, alert, and suspicious of everyone with whom he comes in contact, believing nothing that he hears, and only half of what he sees, and relying in the long run entirely upon his own judgment and experience. If added to all this, he is able to induce everyone to help him by the exercise of tact and good fellowship he will be able to arrive at the local technical opinion, a matter which should never be despised. He should have a fair knowledge of several languages, so as to be able to dispense, as far as possible, with the aid of an interpreter.

In investigations at home, the same unrelenting care is required, and the same suspicion, and the same keenness to overlook no point, and most of all, in addition to the qualities of which I have

spoken, comes that which can be gained only as the years roll on in the rough school of experience, that knowledge which comes from the handling of many different problems, in different places and at different times—that knowledge of men, which, by instinct, tells them whether you may trust them or not, all of which tend to strengthen that confidence in arriving at a clear decision, which is essential if the expert is to be a sign post indicating the safest road to commercial success and prosperity.

If, in what I have said on this subject, I have in any way impressed upon you the very extensive nature of the duties and the very grave responsibilities which the petroleum expert has to undertake, and have shown to you the assistance he can give you, I have not spoken in vain.

#### OIL FOR NAVAL USE.

##### Oil In British Navy Meeting With Great Success.

A cable from Belfast, Ireland, on Tuesday of this week states: "The summer meeting of the Institution of Naval Architects opened here to-day. Admiral Cleveland, retired, discussing fast coaling ships for the navy, deprecated a large expenditure, because 'oil will be the future fuel of warships, and experiments in this direction are being carried on by the admiralty with great success.'"

#### Midland-Pacific.

H. W. McCray, the Kern county representative of the Midland-Pacific Railroad company, returned last week from a journey along the survey. The surveyor's work is now practically completed and the western promoters of the enterprise are very hopeful that the deal for its securities will be promptly closed and the work on its roadbed to the coast resumed.

From present appearances it would seem as if the promoters of this railroad found the enterprise of too great magnitude for them to handle.

The Midland-Pacific, with its oil storage facilities, its lines of tank steamers, the necessity of opening up new markets for oil seems to be too large a financial scheme for lightweight men to carry through.

#### The Pipe-Line.

The oil in the Bakersfield pipe-line reached the Newman pumping station Tuesday afternoon. It will reach Vernalis, the next station, by the last of the week. There are only two pumping stations between Vernalis and Richmond, and the oil will be at the latter place before July 1st.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

#### THE ASSOCIATED.

##### Rumors Denied as to Relations With the Southern Pacific.

A prominent official, asked in regard to the rumors pertaining to the relations of the Associated Oil company and the Southern Pacific, replied as follows:

"The Associated Oil company has not mortgaged its property for the purpose of carrying on development work.

"It has sold a large amount of oil. I am not at liberty to state the quantity or price received therefor.

"It is not necessary for it to do any large amount of development in order to fill this contract, as it had a surplus unsold production of between five and six thousand barrels per day at the time the contract was entered into.

"It is doing no development work at the present time other than drilling some wells along property lines already drilled by other companies, which it must do in order to protect its interests. It has not borrowed any money for this purpose nor is it necessary for it to do so, for the reason that its present income from the sale of oil is in the neighborhood of \$100,000 per month after paying all transportation charges.

"It is possible that the Reed Crude and San Joaquin Oil companies have disposed of their holdings of stock in the Associated Oil company, which they were privileged to do as they as stockholders in the Associated Oil company had the right to dispose of their holdings to anyone and at any price."

#### Sunset Pipe-Line.

Mr. L. Aubert, manager of the California Consolidated Oil Fields company, operating in Sunset, was in the city this week on his way to Paris for a vacation of six months.

Mr. Aubert states that the contract has been let with the National Tube company to supply twelve miles of 10-inch pipe, to be laid in the Sunset field, from the Jewett & Blodgett refinery to the property of the Croesus Oil company at Midway. This will be the northern terminus of the pipe-line, on account of the fact that it is the highest point in the territory that will be tributary to the line. The National will begin delivery of pipe on August 1st and the work of laying will be continued uninterruptedly. Meanwhile a reservoir will be constructed having a capacity of 350,000 barrels. All the big wells in the field will be tapped by this line, which will be a common carrier, and an average price of 5 cents a barrel will be charged. The refinery will be enlarged. A shipment of asphalt of 700 tons has just been received in England from the refinery, which is the first of many shipments.

#### OILED ROADS A SUCCESS

##### Agricultural Department Tells of Numerous Experiments.

A dispatch from Washington states that an article is published in the Agricultural Year Book, just issued, on the use of mineral oil in road improvement. It was written by James W. Abbott, special agent of the office of public road inquiries. He says the beneficial effects of oil on roads have been conclusively proven in California, and that 750 miles of roads and streets are now oiled in that state, from San Diego on the south to Butte county on the north. Wherever oil with an asphalt base is cheap, he advocates its use on the roads. Thus far California is the only state that actually practices the use of oil on roads, though Texas has tried it to a limited extent, and experiments have been made in the east and in three foreign countries.

The most effective object lesson in the use of oil is at Chino, where the soft, sandy roads have been transferred to hard, resilient semi-asphalt pavements by the persistent use of oil, and teams haul two and a half tons where formerly one ton was a heavy load. Special Agent Abbott predicts the constantly widening use of oil as the result of California's experience.

The Aralo-Caspian Petroleum Trading company has been formed, with a capital of 1,300,000 roubles to work a petroleum property at Saboontchi.

Oil has been struck by the Alabama Drilling company near Huntsville, Ala.

#### Articles of Incorporations.

The following articles of incorporation have been filed in the office of the Secretary of State:

St. Paul-Fresno Oil company. Principal place of business, Fresno. Capital stock, \$250,000, with \$50 subscribed. U. M. Thomas, H. H. Welsh, George L. Warlow of Fresno, B. B. Evans, L. T. Chamberlain of St. Paul, Minn., directors.

The Valley Oil Refining company. Principal place of business, Carson, Nev. Capital stock, \$150,000, with \$6,000 subscribed, and Otto Niehaus and Ernest C. Niehaus of West Berkeley, G. A. Schuster of Berkeley, Henry Hoffman and J. B. Bronan of San Francisco and Louis F. Dunand of San Rafael as directors.

Mount Solomon Oil company. Principal place of business, San Luis Obispo. Capital stock, \$150,000, with \$600 subscribed and Peter Tognazzini of Cayucos, Henry Brunner of San Francisco, Anton Tognazzini and D. D. Barnard of San Luis Obispo and S. A. David of Nipomo as directors.

Cru Oil company. Principal place of business, Los Angeles, Los Angeles. Capital stock, \$5,000,000, with \$50 subscribed. Donald Baker, M. C. Barton, A. R. Field, Frank C. Hill of Los Angeles, E. K. Potter of Santa Ana, directors.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



## OIL IN KANSAS.

### The Daily Production Now Amounts to Two Thousand Five Hundred Barrels.

**This Production Can Easily Be Increased to 3,500 Barrels.—The Standard Is Making Preparations to Handle the Product.**

The Pittsburg Commercial Gazette published an interview with B. S. Tupper, the well-known oil expert, in a recent issue, which throws a great deal of light upon the oil fields of the west. Mr. Tupper is an experienced oil man and a careful observer, and has just completed a tour of observation through the Kansas and Indian Territory oil fields.

Mr. Tupper describes the great Kansas oil field as beginning at Humboldt, in Allen county, where a heavy oil is produced from a formation lying about 750 feet below the surface. Advancing to the south and southwest, the oil-producing rock dips at the rate of about four feet to the mile, and when the Indian Territory district is reached it is necessary to go 1,250 feet down into the earth to reach the oil-producing strata. The formations appear to be very regular, and as the wells increase in depth the quality of the oil improves. Chanute, which is about ten miles south of Humboldt, is just now the most active section of the Kansas field. Twenty miles to the southwest of Chanute is Neodesha, near which place the oil development in Kansas had its birth, and where the first oil refinery was erected in the Sunflower state. It is still the central point of the oil industry in that section.

The oil fields continue to the southwest, through Wilson, Montgomery and Chautauqua counties, and into the Indian Territory, covering most of the lands of the Cherokee and Osage Indians. The distance from Humboldt to the state line is sixty-five miles, and from the state line to the Red Fork district, in the Territory, is something like sixty miles. This makes a stretch of territory 125 miles in length and about twenty miles in width. There are five wells at Red Fork, each producing from five to fifteen barrels a day. The oil is shipped by rail to the refinery at Neodesha and brings \$1.16 per barrel, less the freight, which is 23 cents per barrel. This is the average price at present for Kansas oil, except the heavy grade produced at Humboldt, which brings 20 cents less.

Not all of the area, as mapped out above, contains oil, but the producing formation has been clearly traced a distance of 125

miles. In some places it contains no oil, while in others a heavy supply of gas is found. The principal gas developments are located about La Harpe, Gas City and Iola, northeast of Humboldt in Allen county, near Chanute in Neosho county, and at Cherryvale, Independence and Coffeville in Montgomery county. Oil has been found two miles to the north of La Harpe, but the quality is inferior and the wells light.

Chautauqua county borders on the Indian Territory, and at Peru is an oil development of some importance. In April twenty-five cars, or about 3,875 barrels, were shipped from Peru to Neodesha, and there is now about as much more held in storage at that point. Almost all the wells in these fields are put down with a drilling machine, and Mr. Tupper estimates that at least fifty of these are now in operation in Kansas and Indian Territory. He thinks there would be a very large increase in operations if the demand for drilling machines could be met. An accident to machinery or tools causes long delays, as repair and machinery shops are few and far between.

The production of the Kansas

and Indian Territory fields is estimated at not far from 2,500 barrels a day, and if all the wells now shut in were opened up it might be increased to 3,500 barrels a day. By the end of the present year a yield of 5,000 barrels a day is confidently predicted. Contractors get from 80 to 90 cents a foot for drilling in Kansas, and furnish everything needed to complete the well. The best grade of crude oil ranges from 36° to 38° gravity, and the heavier grades from 24° to 27° gravity.

The Standard Oil company is making large improvements in its equipment for handling and taking care of the production. At Neodesha it is increasing the capacity of its refinery from 1,000 to 2,500 barrels a day, and is erecting two additional steel storage tanks at that place, each with a capacity of 25,000 barrels. At Bartelsville, in the Cherokee nation, the same company is building a 35,000 barrel storage tank. The right of way for a 4-inch pipe-line has been secured from Chanute to Bartelsville, and the line will be completed by the early fall and connected up with its branch from Chanute to Neodesha.

Mr. Tupper, while not over enthusiastic in regard to the prospects of the western oil field, was evidently very favorably impressed by what he saw. The possibilities are sufficiently alluring for western capital to invest largely, and there is no telling what the drill may have in store. The stock company promoter and the top-lofty ideas of the land-owners appear to be the most dangerous bars at present to the profitable development of the field.

Subscribe for the PACIFIC OIL REPORTER.

## WILL BURN OIL.

### Another Railroad to Abandon the Use of Coal.

Another railroad is about to begin the use of oil as a fuel on its system instead of coal. President Murphy of the Santa Fe, Prescott and Phoenix railroad has announced that his company is about to take this step. The road extends from a junction with the Santa Fe at Ash Fork, Arizona, south to Prescott and Phoenix. For storage facilities it now has a large tank of 20,000 barrels capacity at Prescott and one of 37,000 barrels capacity to be used jointly with the Santa Fe at Ash Fork. The latter company is also about to extend the use of oil over its entire system in Arizona. It is estimated that the daily consumption of oil will be about 10,000 gallons and will necessarily come from the California fields.

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## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
 The Temple News Stand, Chicago, Ill.  
 The Equitable News Stand, Denver.  
 P. O. News Co., 178 Dearborn street, Chicago.  
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 Western News Co., 204-206 Madison street, Chicago.  
 Pittsburg News Co., 97-99 Third avenue, Pittsburg, Pa.  
 Rhode Island News Co., 139 Westminster street, Providence.

SATURDAY.....JUNE 27, 1903

There are several people posing as "Petroleum Experts" who ought to read and ponder very carefully the article on the fourth page of this issue.

Just because people generally know nothing about the oil business, and desire to be guided to a certain extent by some one who is supposed to know something about oil land, and to be able to foretell whether or no a drill will strike oil in a certain spot at a certain depth, a number of people have blossomed out as "oil experts," who know little or nothing about oil land or oil indications, are ignorant of the first principles of geology, and who will give any opinion provided they know before hand the nature of the opinion that is desired. If they think that some man, who is the one of course, to whom they look for their pay desires a favorable report on a certain piece of land, the desired report is made. If an unfavorable report is desired, it is given. We know of one "Expert" who when asked to examine a certain location, at once replied over the telephone that he was unable to visit the land in question at that time as he had other engagements, but that if the gentleman would write out the report he desired, he, the "expert", would sign it. We believe he received \$50 for this little piece of work.

This gentleman's work as an "expert" was so "raw" that it was soon apparent he was an ignorant,

voluble fraud, and his position and occupation soon vanished. Of late years we have not heard much of him as an "oil expert."

There are others, however, now practicing this occupation that are just as talkative, just as ignorant, just as dishonest.

Some are out and out charlatans, whose dishonesty and scheming proclivities are so apparent one wonders how it is that any sane man could employ them for a moment as an advisor in any enterprise that might lead to an investment of thousands of dollars. Others have the ability of looking rather than talking wisdom. They know their weakness and their strength, and therefore look much and say little. By sedulously following this course they manage to eke out a living on their appearance of wisdom. Some of these so-called "experts" have been the cause of the invest-

earth" and yet the money is pouring into the treasuries at a lively rate. A competent geologist is behind the ones which languish, while a fakir of the first water is behind the others.

The fact is no man should invest in any oil proposition that is not backed up by the favorable opinion of a competent, tried and experienced oil geologist—if such a term can be used. It is easy enough to find out who and what these men are. It makes no difference what the "prospectus" says. To call a man an "oil expert" in a prospectus does not make him such. Half of these prospectuses are unreliable as to the statements they contain. They lie when they call such a man a competent "expert" and the statements he makes in his report are all lies. But they seem to prove effective with some who have money to throw away.

## Production Vast and Increasing.

In 1902 the total oil production of California was **13,692,514 barrels**. During May, 1903, the average daily oil production for the State was a little in excess of 73,000 barrels. This would give a total yearly production of **26,945,000 barrels**.

During the month of April the daily oil production was only a little over 60,000 barrels, or a total yearly production of **21,900,000 barrels**.

The difference between 26,945,000 barrels and 21,900,000 barrels shows how rapidly the production is increasing, viz: at a yearly rate of over **5,000,000 barrels a month**.

If all the wells in the State were pumping the actual daily production would exceed **81,000 barrels**, or the yearly production exceed **29,565,000 barrels**.

California is to-day able to produce as much oil as is the State of Ohio.

**More wells are being drilled daily.**

ment of thousands of dollars in buying land and in drilling wells in localities that no competent geologist would have pronounced as showing any indications of oil. There are New England companies that have spent uselessly \$50,000 each by following the advice of men who knew no more about oil land than a pig does about flying. The money has been wasted, except that the "expert" has his share, the supply companies have theirs, the drillers and toolies have theirs, etc., but the stockholders have nothing.

It seems to us that the oil business is an illustration of the fact that the American people like to be humbugged. We know of several first-class propositions that are going begging, because the promoters cannot get together enough money, while at the same time there are a number of schemes that are "no good on

We wish we had a few more men in California such as Mr. Sutherland describes in his address. Not that we have none here. There are a very few. It will not require all the fingers on one hand to count them. We wish there were more. They are needed right now, and needed badly.

The oil sand in the Kansas field varies from ten to sixty feet, and conservative experts estimate that it will take from fifteen to twenty years to pump out the product, says the Topeka Mail and Breeze. The average daily production of oil wells in this field is said to be about fifteen to twenty-five barrels each, although many wells have been struck that produce from fifty to 150 barrels daily.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

## BENZINE LOCOMOTIVES.

**A New Invention That Accomplishes Satisfactory Results.**

Petroleum, benzine, and other motors which act by the force of the explosion of the vapors from combustible liquids are at the present time receiving universal application for industrial and other purposes. Until now, however, it has not been found possible to utilize it instead of steam as motive power for railways. At the same time such application has many advantages, if we take into account the many difficulties which are unavoidable in obtaining a supply of water in desert or sparsely inhabited districts. In such cases the locomotive has to carry a supply of water as well as fuel, whilst by substituting a benzine motor for the steam engine there would be only the fuel to think of.

Until now the realization of the benzine motor as a substitute for the locomotive was prevented mainly by the frequent changes in the system of locomotives, the great variety of types, and especially their enormous weight. According to the Chemiker u Techniker Zeitung, of Vienna, the "Helios" firm have made the attempt to introduce on their narrow gauge railway lines at Cologne extremely light locomotives of special construction, which form the subject of a patent. These locomotives are capable of drawing very heavy goods trains, and are very convenient, inasmuch that the time required to start them is very short, the protracted operation of steam raising being dispensed with.

According to the figures given in the above paper the cost per horse-power per hour, with 7 horse-power motor engine, does not exceed 0.45 marks (\$10.80), the initial cost being also comparatively small. There can be no doubt of the interest attaching to the experiment of the "Helios" company, and it would be desirable to have it repeated at some of the producing fields, where there is an abundance of such materials as heavy benzines, etc., in view of the great attraction which the application of benzine motors must have for railway.

## Office Removal.

The office of the Caribou Oil and Mining company has been removed from the Nevada Block to 330 Pine street, room 36, San Francisco.

H. H. HART, Pres.

W. H. SIGOURNEY, Sec'y.

D. M. KENT, Asst. Sec'y.

The Mantacheff company have been granted by the Russian government the lease for the exploration and exploitation of petroleum of a plot of land near Poota bay, about six miles from Baku.



## OIL IN IRRIGATION.

## Water by Pumping More Satisfactory Than from Canals.

During the last two years the PACIFIC OIL REPORTER has repeatedly shown how arid land in all portions of the State is being made fertile by obtaining water from the underground flow which is found almost everywhere in the State, and raising it to the surface by means of pumps the power for which is obtained by engines using gasoline or crude oil. These engines are powerful and cheap, and the cost of fuel is so low that a farm of forty or eighty acres can

venient for him to irrigate on that day; but convenient or not he has to use the water then or not at all.

With a pumping system the farmer can irrigate when and where he pleases, and is independent of any canal company or of the wishes and necessities of his neighbors. A few hundred dollars will place the farmer in possession of a complete home irrigating plant, sufficient to irrigate his orchard, his vineyard, alfalfa, grain, etc., and in fact place him in a position where he is independent of the rainfall, and where he can count with certainty upon a supply of water when needed,

years ago, I told your predecessor, 'The Advocate', with pride, how the Lindsay Land company had irrigated some 500 acres of young citrus trees for about \$2,500 a year, pumping water therefor by steam power. Since then electricity has come into use, and this same 500 acres of land in bearing trees is being irrigated for about \$1,500 a year. It is not, however, to enter into small financial details or to tell you how the pump manufacturers are now vying with one another to produce the most efficient pumps, that I write this additional letter. I want to tell your readers that whereas in 1893,

is due to the demonstrations that have been made on land irrigated by pumping plants.

"Dry land which sold in 1890 for \$25 per acre—land ten miles distant from any visible water supply—has, this year, sold, in bearing orchard, for \$950 an acre, and at present prices of oranges, this latter valuation will pay 20 per cent on the investment. The outlook is still brighter as the trees will increase in size and productiveness for many years. This orchard land has received no water, except our scanty rainfall, that has not been pumped from a depth of sixty-eight feet below the surface.

"I am not as well informed as



Well of the Maricopa Oil company at Sunset. This well is within a stone's throw of the wells of the Fulton Oil company, recently brought in.

be irrigated in this way cheaper than by buying water from the irrigating canals, and the water can be had when it is most needed, and when it is convenient to the farmer to use it. In many sections the land is so situated that it is impossible to obtain water from canals. In other sections there is such a scarcity of water in the canals that not enough can be had to save the crops, or if it can be had it must be used at just such a time, and for so long a time, Farmer Jones having the privilege for Monday, Smith for Tuesday, Brown for Wednesday, and so on. It often happens that on the day set apart for Jones it is not con-

venient for him to irrigate on that day; but convenient or not he has to use the water then or not at all.

There are in California to-day at least 400 such pumping plants, the most of which are run by gasoline or crude oil engines. These engines are using up a vast quantity of the products of our oil fields, and their use is increasing very rapidly. It is a significant fact that every manufacturer of gas engines in San Francisco is to-day overrun with orders, and every plant is working overtime.

In the May number of the Homemaker, published at Washington, D. C., appeared the following article written by Captain Arthur J. Hutchinson of Lindsay:

"In an article written some

when this first steam pumping plant was erected at Lindsay, there were not in Tulare county to exceed 200 acres of land planted in citrus fruits, there are to-day, 5,500 acres of land planted in oranges, lemons and limes, all irrigated; of this 5,500 acres planted, 2,000 acres are in full bearing and produced and shipped last year nearly 1,000 carloads of citrus fruits, representing a net profit of some \$330,000 to the growers. Fully two-thirds of this acreage is irrigated from water raised to the surface by pumping with either steam, electricity or gasoline engines for power, and practically all this increase of acreage

to what is being done in the center of this valley, but I do know that where water is close to the surface and the centrifugal pump is rightly harnessed to power, four or five crops of alfalfa are being raised in one season, and that vineyards and prune orchards that were formerly a financial loss to the owners, are now a considerable source of revenue.

"There is a great future for irrigation by pumping in this favored section of California, with its magnificent underground water supply. Even on the large irrigation systems I believe that, where cheap power can be applied to underflow, pumping will supplant long and expensive canals. This, however, is my belief; what I have stated above are facts."



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

It is estimated that over 1,000 men are now in the Alaska oil fields, and that during the summer fully 5,000 will be on the ground.

#### COALINGA.

McClurg & Claypool spudded in on No. 3 this week.

The Wabash is having considerable trouble with water.

Philadelphia-San Francisco Oil company is rigging up for No. 3, to begin drilling at once.

The Union, on section 13, 20-14, are already down 250 feet in their well No. 1, and making good headway.

Section Seven Oil company spudded in on its No. 2 well this week, which is located a few hundred feet east of No. 1.

20-15, from A. Sturtevant. The same parties are now negotiating for other available lands in the southwestern portion of the field, lying in the presumed oil belt.

The National Supply company has purchased the building, lot, stables, etc., from the Coalinga Oil company, and will make alterations to fit up the building for their store and office. The building is centrally located and excellently adapted for the purpose to which it is put.

Section 24, 19-15, has been acquired by the Rhode Island-California Oil company, and work will be begun on it within two months. This company has been unfortunate in drilling a well on section 20, 20-16, and are now getting on land within two miles of some of the

cost in the neighborhood of \$2,500 each. The district foreman, Mr. Davis, who has been away for some time, returned this week to resume his work.

#### FULLERTON.

Tom Seine, the expert driller at the Santa Fe oil wells, has just added another gusher to the many successful wells bored in that neighborhood. The well started to gushing some days ago, and gives promise of being one of the best producers on the lease. Six months' time was consumed on the job, when at the outset it was thought a year would be necessary to finish the job. Seine had for his assistant Allan Melrose, and since the well began gushing the two boys are off on a short vacation.

The Los Angeles Times says that California's oil fields have scored again; this time at the hands of a prominent representative of the Standard Oil company, who, after visiting the Fullerton district, declared last week that one of the best oil producers in America is to be found within the confines of that territory. The well referred to is No. 12 on the Brea Canon Oil company's lease in Brea canon, which was brought in over eigh-

teen months ago and alone has made the company several hundred thousand dollars. The record of this producer places it in the front rank, and according to the Standard man it is the best in the world, with the exception of a few spouters in Russia. A number of times during the past year the well has gushed high gravity oil at the rate of 3,000 barrels a day for periods of ten or fifteen minutes, and the first year it flowed on an average of 1,000 to 1,600 barrels daily, while the output from it for the past six months has not fallen far below that record. It is a gusher and never has been put on the pump. Operators on the property say that millions of cubic feet of gas have escaped from it since it was opened, and the cap on the well shows that it is producing under a pressure of 1,900 pounds to the square inch. This well has done much toward supplying the Santa Fe with 10,000 barrels and the Standard Oil company with 12,000 barrels of oil each month. On the company's lease there are other wells, but there are contracts to fill, and new wells are being drilled. No. 15 is down 1,600 feet, with a good showing, and rigs are now being built for two others.



One of the great gushers on the Santa Fe lease, Fullerton field.

Mr. H. H. Brix, manager of the Coalinga Consolidated Water company, has taken an option on the N. ½ of section 4, 21-15, owned by C. F. Barker.

After running for a little over one week the Mt. Hamilton Oil and Land Development company have again ceased operations for an indefinite period.

The Connecticut-California Oil company, that has been operating on section 6, 20-16, since last March, and has reached a depth of 1,300 feet, ceased work two weeks ago for an indefinite period.

Mr. Chas. Canfield, Jr., who has been looking after the affairs of the Coalinga Oil company in this field, has left town and Mr. Chas. Chase, the local manager of the National Supply company, is taking his place.

The Fauna Oil company, on section 28, has suspended operations on its well after reaching a depth of over 1,800 feet and not striking a paying oil sand. It is quite possible that drilling will be resumed on this well later on.

Mr. H. H. Welsh, et al., have recently purchased the NW. ¼ of section 32,

biggest producing wells in the Coalinga field, namely, those of the California Oil Fields, Limited.

At the annual meeting of the Commercial Oil company in Fresno, two weeks ago, the following officials were re-elected: President, W. W. Machen; vice-president, M. Madsen; treasurer, M. L. Woy; secretary, A. J. Hudson. It was also decided and planned to drill six more wells on its property in section 31. The wells will be drilled in succession following the completion of its No. 2.

Mr. John Page, the general superintendent of the Standard Oil company, was in town for a few days inspecting the field and the working of the gravity lines. Everything in this field seems to work entirely satisfactory. The company's surveyor is here making surveys for more field branch lines, to be laid when the delayed pipe arrives. One mile of pipe lacks to connect the tank on section 6 with the main storage tanks on section 21, and until this is remedied no oil can be shipped from the lower tank through the main pipe-line. The company is now erecting three very comfortable houses for the gaugers, pumpers and the district foreman, which

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Mention this paper.



## GLENN.

The Orland Register says the oil well near Willows is showing better indications every day. In conversation with Mrs. Jenkins Tuesday she said there is no longer any doubt; they are sure to strike oil soon. The Register certainly wishes the enterprise every success and also the lady, who has so energetically pushed the work right along, no matter what the discouragements.

## HALF MOON BAY.

J. E. Kerr, who has been drilling a number of wells in San Mateo county, will begin another well for another company within a very short time.

Owing to the high price and scarcity of wood, the expense of drilling oil wells in San Mateo county is a very large item. The High Gravity Oil company will be supplied with fuel oil by the Fountain Oil company.

Our latest report of the wells of the Gaiberson company is to the effect that their deep well at a depth of 2,300 feet penetrated the oil sands which prove conclusively that the deep wells in this territory will be remarkable producers.

At 1,520 feet, the Paxton company struck a stratum carrying 50 degrees gravity oil of a light greenish color. Indications are constantly improving in this well. At the depth mentioned the 7½-casing stuck, which may necessitate the purchasing of a string of 5-¾-pipe.

The well of the Wisconsin company that has been flowing for some three or four months will be immediately put down deeper into the sands which have already been penetrated. Superintendent Holmes starts up the work this week. The oil already accumulated is of a very high-grade and is being sold to the local refinery at Half Moon Bay for \$2.50 per barrel.

## KERN

The Alameda has one string of tools working in Sunset.

The Illinois Crude has just perforated well No. 7 on its property at Kern River.

Max Grossmayer will drill two new wells on 21, 28-28. He has two wells finished.

The Sea Breeze put its well on the pump at McKittrick last Thursday and got 100 barrels.

The Charter Oil company has perforated its first well. Work on other wells will be commenced at once.

The California Kern Oil company, operating at Kern River, has landed its casing in well No. 2. The well is down about 1,100 feet.

In the case of the Occidental Oil company vs. Chico Oil company, the attachment has been released, the defendant filing a bond in the sum of \$750.

The Jewett & Blodgett refinery, which has been shut down for a few days to make needed improvements, will soon start up again, if it has not already done.

The new well of the McKittrick Oil company, their latest producer—well No. 6—is the best of the bunch and gives promise of making a big record. The well was completed only a few days ago and it will shortly be placed on the beam.

It is reported that the Southern Pacific has purchased forty acres from the Alta Oil company at McKittrick, on 11, 30-21. The Southern Pacific has nearly two entire sections of proven oil lands at the McKittrick field. It is now the largest holder in that district.

The Pittsburg Oil company directors met last week and declared dividend No. 4. The amount is 2½ cents per share and the sum to be distributed among the stockholders is about \$6,000. The dividend will be payable on July 1st, and the books will close for transfer on June 27th.

The Metropolitan company has filed articles of incorporation at Bakersfield. The company is organized for the purpose of operating in oil and mines. The principal office is located at San Francisco and the duration of the corporation is fifty years. The incorporators and directors of the company are F. C. Drew and Mr. Bernard of Alameda, C. B. Gillespie, F. Hall and J. G. Weir of San Francisco.

A strike which was commenced in Los Angeles on Tuesday last, by the pipe and tank men has affected the men in the Kern oil fields who were employed by the Lacy Manufacturing company to erect two 55,000-barrel tanks for the Southern Pacific company at Oil City. They received word last Thursday morning and thirty men stopped work at once. The tanks which were being built are in great demand, and the strike will probably delay matters for some time.

Y. Hayashi of Niigata, Japan and I. Kitano of Echigo, Japan, have been visiting the oil fields of Kern county, for the purpose of gaining information about these oil fields. These gentlemen

are examining the field with a view to making locations. V. E. Wilson has also taken up 5,000 acres in the district and the entire country is being covered with locations by oil men, many of them being Bakersfield people or operators in the neighboring fields. The Webfoot company which has been drilling for some time in the Cuyama, just across the line in Ventura county, has struck oil in one well but the Managers are reticent in regard to the quantity or the conditions. The company, however, is reported to be about to start work on another well.

Word reached Bakersfield Sunday night of an event that may be of the greatest interest in oil circles, indicating, as it appears to, the existence on the southwest side of the mountains on the Carisa plains of another oil belt extending along the mountains in a manner similar to that running through McKittrick, Midway and Sunset. Some months ago, says the Californian, the Bonanza Oil company struck oil on its property on 26, 30-21, and about three months ago President John M. Wright of the Peerless Oil company, entered

Oil company reached oil at the same depth some two miles westerly from the local company's well. It has been disappointing in not reaching oil at even a lesser depth, as in a former well near by seepages had been secured at a much less depth. The Record says the company will not, however, become alarmed lest a dry hole be the result of their labor and expenditure until the 2,500 foot mark is passed without perceptible change. It is possible that there has been some mistake in locating the trend of the anticline and that even 3,000 feet may be required to reach the oil strata, should it prove to be in that region. If a gas flow is a sure indication of the presence of oil, this company has only to persevere and success will be the result.

## MENDOCINO.

The Ukiah Oil and Development company have their rig up and have commenced drilling. The Russian River Oil company have their derrick up and work will be commenced on the drilling immediately. Both these rigs are near Ukiah.

## SANTA BARBARA.

The oil-boring rig for the well to be sunk for the Mulholland company on the B. Pezzoni ranch, near Guadalupe, arrived at the depot last week Monday and was taken out to the ranch at once. The grade which had to be built to where the derrick will stand is finished, and the lumber for the derrick has been ordered. Mr. Connel, who has the contract for drilling the well, is here with a crew of men and is making active preparations to begin the work.

## UTAH.

There is considerable oil excitement in Grand county, in the vicinity of Cisco. Some new discoveries have been recently made there and at least a half dozen wells will be put down this summer in that section. Eastern oil men have large holdings in Grand county and will at once commence a thorough exploitation of the ground.

The most active of the oil companies now working in the Eastern Utah field is the New York-Utah company, which has just completed its first well in Clark's valley and is moving its outfit some few hundred yards south to commence the second well. The first well is 1,600 feet deep, and is plugged, and all that the public is told of the company's affairs is that they are satisfied with conditions and prospects, and not only intend to sink a second well, but also six or eight more.

There is much excitement in Millard county over the discovery of oil at the state experimental well. Thus far some three miles square have been located surrounding the well, and locating is unabated. The impression has gotten out that previous homestead entries will not stand as against petroleum locations, and with that understanding a number of men who have homestead entries in the locality have gone and taken up the land again by locating for oil. The drill is still in white shale and the value of the strike is still to be determined.

## WYOMING.

Mason F. White, Secretary and Treasurer of the Evanston Oil Exchange, and President of the Altamont Oil company, was in San Francisco this week. Mr. White is the owner of a large tract of valuable oil land in Uinta county, Wyoming.

The Evanston New Register says the Union Pacific is opening up new coal mines nineteen miles east of Rock Springs. This announcement, and the apparent haste of the company to get the mines opened, adds strength to the report that the mines at Spring Valley may be abandoned soon. It is said that while the coal from the latter mines is of a good steaming quality, the mining of the product is fraught with great danger, for the mines at Spring Valley are filled with oil seepages and dangerous gases, and while only an occasional explosion with no serious results have occurred, it is feared that there will be a terrible disaster sooner or later, and it is to avoid this threatened accident that the properties will be abandoned. Then it is a well known fact that the expense of mining coal in many of the mines at Rock Springs has become so great, owing to the long hauls to the surface, that the cost of the fuel is rendered excessively high, so high in fact that other properties can be opened and operated for years at a saving to the company.

## Oil Land Department.

The PACIFIC OIL REPORTER announces that it has fortunately been able to secure the services of Mr. U. M. Thomas, late of Fresno, to manage the Land Department business of this paper.

So many inquiries regarding land in different oil fields have reached this office lately that it has been impossible to give this matter the attention its importance deserved.

Mr. Thomas is a practical oil man, is thoroughly conversant with the different fields, and will give his personal supervision to all matters pertaining to the buying and selling of oil land.

Those having land to sell, or those seeking an investment in oil lands in any district, should apply to the Oil Land Department of this paper.

The aim of this department is to bring together responsible buyers and sellers.

We aim to handle only choice properties. Address

## OIL LAND DEPARTMENT

Pacific Oil Reporter

318 Pine Street, San Francisco

arrived from the Orient a short time ago and since their arrival in California have been visiting various oil fields in the State. A number of their countrymen are interested in oil at McKittrick, but the mission of these visitors is merely for the purpose of gaining information on the latest and most improved methods of operation. They will continue their journey to the Eastern states and visit the oil fields in those parts.

Dr. T. A. S. Newbury and Timothy Spellacy have just returned from a trip to the Cuyama district, where the doctor has 15,000 acres of oil lands located. The Californian says that Mr. Spellacy thought well enough of the country to take up a large block of land for himself adjoining the doctor's property. He believes that the Cuyama is one of the coming oil districts of California. Other oil men are beginning to get interested in the district and an English syndicate has taken up 5,000 acres close to Dr. Newbury's property and is expected to begin development work shortly. A Chicago syndicate has also taken up a similar number of acres in the district, besides which a number of other parties

the field and secured 8,000 acres to the southeast of this and began drilling. A few days ago the drill ran into an unusually fine oil formation similar to that found in the famous Shamrock gusher at McKittrick. The gas proved so strong that the casing was blown out and the company forced to suspend operations until repairs could be made. The site of the new well is in township 31, range 21. It is southwest about fifteen miles from McKittrick field proper and shows the oil belt discovered by the Bonanza company to extend along the base of the south. Oil has already been found in the Cuyama district south of this and west from Sunset, thus proving conclusively the existence of a rich belt on the west side of the mountains similar to that on the east. The news is expected to arouse still further interest in the new district west of the mountains and to stimulate the oil men in their efforts to enter the new territory. Operations will be resumed as soon as the damage done by the blowout is repaired. The oil formation was struck at a very shallow depth.

## LOMPOC.

The Lompoc Oil company is now down nearly, if not quite, 2,300 feet and are in the same formation in which the Union



## OIL IN NEVADA.

### A Systematic Attempt Being Made to Find Oil Near Elko.

#### Geological Conditions which Indicate the Presence of a Large Deposit of Crude Petroleum of a Paraffine Base Valuable For Refining Purposes.

A recent copy of the Weekly Independent of Elko, Nevada, contains an interesting account of the attempts now being made to find oil in that vicinity.

From the article the following is extracted:

Our reporter interviewed Mr. C. A. Burcham, one of the principal owners of the famous "Yellow Aster" gold mine of Randsburg, California, who has been here for the past few days looking into the operations and prospects of the Rocky Mountain Oil and Development company, who have been engaged for the past few months in putting down an oil well on the line between SW  $\frac{1}{4}$  of section 24, and the SE  $\frac{1}{4}$  of section 23, about two miles from this town.

Mr. Burcham said: "I am conversant with the California oil fields, and have made a careful study of them, and I can truthfully say, that as far as surface indications go, the showing here in Elko county, far surpasses anything I have seen in California, and I firmly believe you have here one of the greatest deposits of paraffine oil that has been discovered in the United States, and from the reports of experts whom I have had examine the field, and especially those who were conversant with the Pennsylvania fields, the showing here is even larger and better than in that State.

"We have here at this point, and extending for miles, both north and south, an ideal formation, consisting of deposits of conglomerate, sandstone, fossil limestone and shale, upon the granite bedrock of the country, and from all indications, the deposits are from 3,000 to 5,000 or more feet in thickness upon this granite.

"Lying directly upon the granite, we find deposits of a coarse conglomerate, and upon that, a very large deposit of fossil limestone, containing innumerable fossilized specimens of salt water origin, such as coral, etc., showing that at some remote period this entire country had been covered with water. On top of this limestone, is found another deposit of pebbly conglomerate, and a fine grained sandstone, of a thickness apparently of more than 1,000 feet, and upon this last deposit, is found the large beds of clay shales, and

strata of limestone, containing only fresh water fossils.

"Through these deposits of clay shales are found strata of so-called 'oil shale,' five feet to as much as thirty feet in thickness. All of these strata have an almost uniform dip to the east, of about 20°, and it is the same way with the clay shales.

"These 'oil shale' strata, crop out at intervals for a distance of

more than four miles, and wherever they have been found on the surface, the 'oil shale' is found to contain a high percentage of paraffine oil. I have had numerous analyses made of this shale, and it has been found to contain from 30 per cent to as high as 52 per cent oil, and this oil when refined has contained about 40 per cent of paraffine without a trace of the asphaltum which most of the Wyoming oils contains, in addition to the paraffine which makes them such a desirable oil.

"The residue from the distillation of this shale consists almost wholly of carbon, with only a very small per cent of lime and silica.

"I have carefully studied the deposits of 'oil shale', and the conclusion I have reached, as well as the opinion of scientific men I have consulted about the matter, is that the deposits were formed by the deposition of vast amount

of vegetation which were afterwards compressed into their present state, by submergence, and the deposition upon them of the fine silt, etc. which now form the beds of clay shales found here, and these vegetable deposits, being open and porous, and reaching down to the deposits of sand and conglomerate below formed, when oil was formed from the immense deposits of animal life, which formed the large beds of fossil limestone now found here, the only avenue through which the oil could escape to the surface, from this large reservoir sand and conglomerate, overlying the fossil lime, and in this oil in escaping to the surface, lost nearly all of the lighter grades through volatilization, leaving behind the paraffine base, and a small amount of the heavier oils, which soon filled up the pores of the strata, and having hardened, formed the so-called oil shales of this day, and this

## Annual Statement

OF THE

## . . . Standard Rock Oil Company . . .

AND

## Manager's Report

### To the Stockholders of the Standard Rock Oil Co., Greeting:

At the annual meeting of the Stockholders of the Company, held on May 21, 1903, postponed from April 23, 1903, a large majority of the capital stock was represented. After reading the minutes of the Stockholders' meeting of 1902 a new Board of Directors was elected. The four old Directors were re-elected, and the existing vacancy was filled by the election of Dr. C. T. Deane, the Secretary of the California Petroleum Miners' Association, who at the Directors' meeting was chosen as Vice-President. The books and vouchers were gone over and were found in perfect condition.

During the year 1902 to 1903 the Company has successfully erected and completed their new asphaltum refining plant and bored six wells, in all of which liquid asphaltum of 85 per cent purity was found, which fact proves conclusively that an immense lake of liquid asphaltum underlies that whole territory. Several shipments have been made of crude liquid, as well as refined asphaltum. Of one trial shipment of twelve tons, which was sent to England in March, 1903, no word has been received yet, as the Southern Pacific Railroad Company misshipped the material several times and finally left the asphaltum lying in New York City for a month in their warehouse.

The possibilities of this asphaltum property of 6,000 acres are really marvellous. With the unlimited quantity of asphaltum on the lands, an ever widening market in California, as well as in the East and Europe, there is no reason why this Company should not become eventually a great and successful producer, with heavy net earning power. The only reason why the Company is not paying large dividends at this time is because of the apathy of the public toward any kind of stocks, though some stock has been sold until May every month, sufficient for development work and to pay all running expenses—to keep the Company out of debt. But still a large amount of capital is absolutely necessary to open up the property, for needed improvements and to build a tramway to the railroad station, a distance of 2  $\frac{1}{2}$  miles in a straight line, whereas at present the Company is compelled to haul their asphaltum over four miles of hilly and soft adobe road, which must be repaired every spring. For this reason the Board of Directors has decided not to continue with the work, nor to make any further improvements, until a sufficient amount of cash is paid into the treasury. It is deemed unwise to spend money just as it comes in without any large reserves in the treasury. This decision may be trying to the patience, but it is certainly for the good of the Stockholders. While a few over-anxious may rebel against it, the calm majority will consider it a safe and sound policy, highly to be commended, and the only possible way to early dividends.

There is one more important cause why actual work was retarded, and that was the very severe illness of the President and Manager of the Company, Major R. A. Falkenberg, who was compelled to be absent from his office and the plant for nearly four months, since February, just at a time when the camp should have been prepared for heavy business. The President has given his entire time to the Company for over two years without any salary, and has bought, whenever the funds in the treasury were low, many thousands of shares for his friends out of his own pocket and advanced the Company at times thousands of dollars in cash, which certainly shows his great confidence in this asphaltum property, and he naturally feels like recommending this stock to his friends.

The time has not yet arrived to bore for oil on some of the Company's oil lands, as the price per barrel is still very low, but the outlook is undoubtedly very good, and while oil can still be bought at 25 cents per barrel there is no reason why the price should not be enhanced within a year to 50 cents per barrel at the wells.

During the past year there was no salary paid to any officer of the Company, and the office expenses were kept down to less than \$50 per month. Instead of expensive advertising, agents have been appointed by the Directors in different parts of the United States.

The new Director and Vice-President, Dr. C. T. Deane, has assured the Directors that there will not be any trouble in interesting Eastern capital in the Standard Rock Oil Company as soon as the necessary investigations as to lease and lands are made and satisfactorily completed, which will probably be inside of three or four months. When this takes place the stock will appreciate materially in value and will be at once entirely withdrawn from the market.

Board of Directors Standard Rock Oil Co.



shale has become so compressed and hardened on the surface, that there is now no movement of the oil through it, but I am strongly of the opinion that when depth has been reached on this shale, to where the internal heat of the earth is sufficient to warm and soften this surface hardened paraffine and oil, that a good flow of oil will be got even before the sand reservoir below has been reached.

I did think at my first visits here that the oil reservoir below would necessitate a very deep well to tap it, but since studying the formation, through which the well of the Rocky Mountain company has passed, and the constantly increasing percentage of oil found in the oil shale strata which they have passed through I do not believe that this main reservoir lies at a greater depth below them than 2,000 feet at the uttermost, and I am confident that they will obtain a profitable flow of oil in their well before a depth of 1,000 feet is attained, for the reason that shale, which, where it crops on the surface, carries 30 per cent of oil, at a depth of 300 feet in this well, or about 600 feet on the dip of the strata, carries nearly 70 per cent of the same grade of oil, and I am of the opinion that if the water at present in this well were cased off that a small supply of oil would be found

to come in, probably a barrel or more a day. In their old well, about twenty-three feet from the present one, they reached a depth of 508 feet, all of this depth being in shale, and through several strata of oil shale, each deeper one carrying an increased percentage of oil, and in the bottom they were in a strata of clay or "gumbo", which was saturated with oil.

The Rocky Mountain Oil and Development company are now thoroughly equipped with rig, tools, etc., as well as with capital, to thoroughly develop their land, and I consider the present managers of this company, who are on the ground in charge, to be careful conservative business men, whose main object it will be to push this enterprise through to a successful finish, and that in the shortest space of time, and with the least expenditure of capital, and having this faith in them and in their prospects, I am willing to assist them, financially as well as otherwise, and have done so.

I consider their stock a very good investment, and was surprised and delighted as well to find that the business men of Elko, who have had very little experience in oil, thought the same as I did in the matter, for the ease and rapidity with which they raised the amount of \$6,000 in twenty-four hours was a credit to a town

of a much greater population, and where the people have faith in their vicinity, it gives faith to the outside investor, who knows nothing but what he has been told about it.

The company now have on the ground a first-class derrick and outfit, consisting of machinery, tools, buildings, etc., capable of going to a depth of 3,000 feet if necessary, also 500 feet of 11 5/8-inch casing, and about 925 feet of 9 5/8-inch, and this, with a cash capital of nearly \$10,000 in the treasury, every dollar of which is to be put into the well, and none of it in salaries to management, assures the completion of this well to a profitable finish, for, as I said before, I have not the least doubt but what a good flow of high grade oil will be encountered before a depth of 1,000 feet has been attained.

One of the best signs for a successful outcome for this company is, in my opinion, the great faith which their drillers have in the property, for, while they already have subscribed for considerable of the stock, they have agreed to go ahead and take the larger portion of their monthly salaries in stock at the present prices, they are men who have had a great deal of experience in California as well as elsewhere, and their opinion to me is worth more than that of the so called "experts."

Taking all the above facts into consideration, I am very well satisfied with my investment in this company, and also in the field, and I am certain that we have here a "Sure Winner."

#### Special Coalinga Edition.

The special Coalinga edition of the PACIFIC OIL REPORTER will be published July 4th.

This edition will be the finest oil paper ever issued.

It will contain a full description of every company operating in the Coalinga field, and photographs of every rig in the field will be reproduced by elegant half tone cuts.

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PURCHASE AND SALE OF

## PROVEN OIL LAND

On account of the very many inquiries made upon us from parties wishing to have us aid them in different capacities in regard to buying or selling oil land, located in the different oil districts, the publisher of the PACIFIC OIL REPORTER has been compelled to establish a department where parties wishing to buy or sell oil land can have their inquiries answered and proper attention given to the requirements of an oil land selling agency.

No one need apply to this department for any aid in the sale of land unless said land is located in the proven oil belt, and unless the land offered for sale can show a clear title. The same conditions will be required for lands offered on lease.

In regard to purchasing land we wish to deal only with principles, and have no time to waste on "agents" who first hunt up a proposition and then "hustle" for buyers.

Parties wishing to invest in small or large holdings of good oil land can choose among choice pieces in several fields. We have now on hand a choice tract which has on it a good producing oil, and is surrounded by producing properties.

We will sell land and will assist in the organization of oil companies, seeing that they are started on the right track, and placed in a condition where they can go ahead and develop their properties successfully.

This department will have nothing to do with wildcat propositions or with companies that are over-capitalized or are organized simply to sell stock.

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If you have Oil Lands for Sale list it with us as soon as possible.

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OIL LAND DEPARTMENT

Pacific Oil Reporter

318 Pine Street,

San Francisco, California.



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, June 24th:

APOLLO.		
1,000 at	43.....	\$ 430 00
ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.		
400 at	25.....	100 00
AZTEC.		
1,000 at	80.....	800 00
CARIBOU.		
150 at	90.....	135 00
CENTRAL POINT CON.		
300 at	75.....	225 00
CHICAGO CRUDE.		
2,630 at	21.....	552 30
FOUR.		
400 at	68.....	272 00
400 at	69.....	276 00
100 at	70.....	70 00
HOME OIL.		
900 at	2 85.....	2,565 00
100 at	2 90 (S 60).....	290 00
1,075 at	2 90.....	3,117 50
450 at	2 95.....	1,327 50
800 at	3 00.....	2,400 00
200 at	3 05.....	610 00
800 at	3 10.....	2,480 00
200 at	3 10 (B 5).....	620 00
50 at	3 15.....	157 50
100 at	3 20 (B 90).....	320 00
INDEPENDENCE.		
2,000 at	17.....	340 00
500 at	16.....	80 00
JUNCTION.		
4,720 at	21.....	991 20
LION.		
475 at	06.....	28 40
MONARCH.		
2,500 at	57.....	1,425 00
MONTE CRISTO.		
200 at	1 00.....	200 00
100 at	1 05.....	105 00
OCCIDENTAL OIL.		
8 at	20.....	1 60
5,450 at	21.....	1,149 50
OIL CITY PETROLEUM.		
3,000 at	32.....	960 00
500 at	33.....	165 00
PITTSBURG OIL.		
200 at	45.....	90 00
50 at	46.....	23 00
REED CRUDE.		
500 at	36.....	180 00
SOVEREIGN.		
800 at	38.....	304 00
300 at	39.....	117 00
2,270 at	40.....	908 00
500 at	40 (B 60).....	200 00
STERLING.		
150 at	2 90.....	435 00
133 at	3 00.....	399 00
200 at	3 05.....	610 00
SUPERIOR.		
1,000 at	05.....	50 00
THIRTY-THREE.		
75 at	8 00.....	600 00
WEST SHORE.		
100 at	3 00.....	300 00
36,786 Shares,	Amount,	\$26,409.60
CHUTES CO.		
100 at	8 87½.....	812 50
FISHER R. THEATRE CO.		
100 at	2 50.....	250 00
SPRING VALLEY.		
20 at	82 50.....	1,645 00
280 Shares	Amount	\$2,707.50
ASSOCIATED OIL CO. BONDS.		
15,245 at	74.....	11,281 30
15,245 Shares	Amount	\$11,281.30

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	.....
Apollo.....	.40	.....
Asso. Oil Co Stk. Tr. Certificates.....	.25	.....
Aztec.....	.77½	.80
Bay City.....	.20	.....
Bear Flag.....	.06	.....
California Standard...	13.	.14

Caribou.....	.90	.....
Central Point Con.....	.75	.....
Chicago Crude.....	.21	.....
Clairemont.....	.32	.....
Esperanza.....	.80	.....
Fauna.....	.05	.....
Four.....	.69	.72
Fulton.....	2.90	.....
Giant.....	.20	.....
Hanford.....	120.00	.....
Home.....	2.90	2.95
Homestake.....	3.00	5.00
Imperial.....	.....	.....
Independence.....	.16	.17
Junction.....	.21	.....
Kern.....	5.25	6.25
Kern River.....	14.00	15.00
Lion.....	.06	.08
Monarch of Arizona...	.56	.58
Maricopa.....	.10	.....
McKittrick.....	.13	.....
Monte Cristo.....	1.00	1.05
Nevada.....	.50	.....
Occidental of West Va	.20	.21
Oil City Petroleum....	.32	.33
Peerless.....	14.00	15.00
Petroleum Center.....	.05	.....
Pittsburg.....	.50	.....
Piedmont.....	.06	.10
Reed Crude.....	.37	.38
S. F. & McKittrick....	2.50	2.75
San Joaquin O. & D...	5.50	6.75
Senator.....	.75	.....
Shamrock.....	.20	.22
Sovereign.....	.38	.39
Sterling.....	2.80	2.90
Superior.....	.04	.....
Thirty-three.....	8.25	.....
Toltec.....	.25	.....
Twenty-eight.....	3.50	4.10
Union.....	64.00	.....
United Petroleum.....	118.00	.....
West Shore.....	2.75	.....
Western Petroleum.....	.16	.....
Wolverine.....	.57	.....

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7:30	A. M.—*BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.
9:30	A. M.—*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11:10 p. m.
9:30	A. M.—*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
4:00	P. M.—*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
8:00	P. M.—*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\*Daily      † Mondays and Thursdays  
‡ Tuesdays and Fridays.

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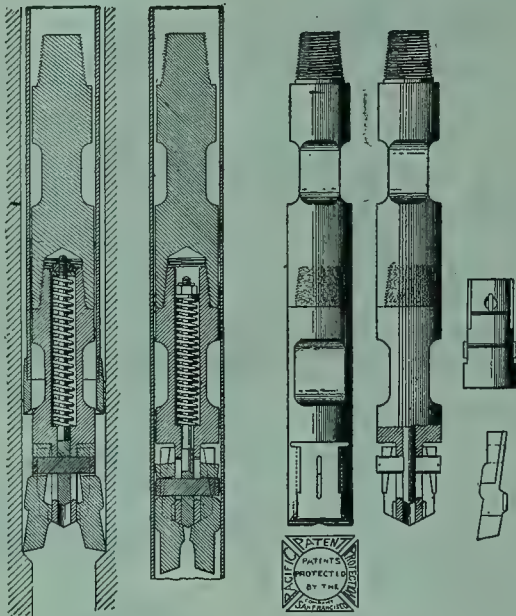
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SAN FRANCISCO, CAL., SATURDAY, JULY 4, 1903.

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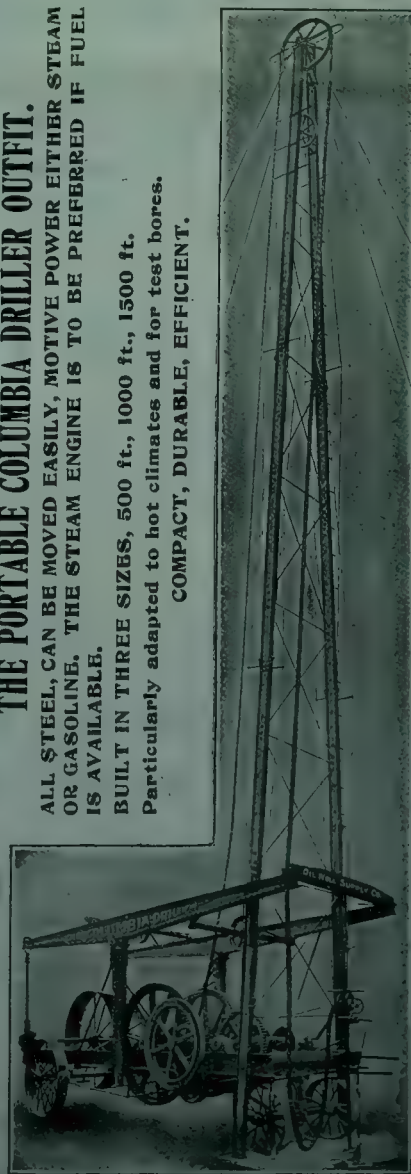
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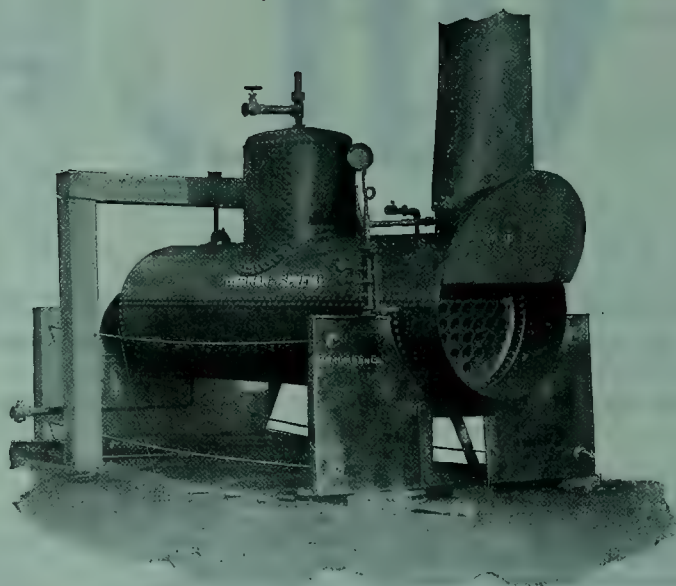
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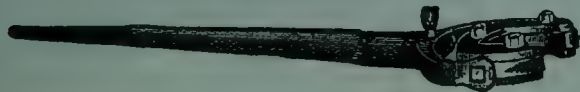
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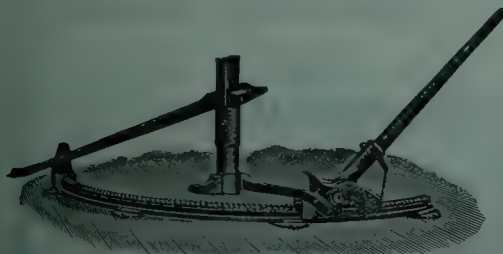


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# PACIFIC OIL REPORTER

VOL. 4. NO. 35.

SAN FRANCISCO, CAL., SATURDAY, JULY 4. 1903.

PRICE, TEN CENTS.

## THE COALINGA OIL FIELD.

**The District Has a Yearly Productive Capacity of Nearly Three Million Barrels.**

**Now In the Beginning of Its History, and the Productive Portions of the Field Have Just Begun to Be Developed.—Its Great Future.**

Before entering upon an extended article concerning the Coalinga oil field, the PACIFIC OIL

rel; in 1900, to 427,200 barrels; in 1901, to 846,570 barrels; in 1902, to 497,780 barrels.

rate of over 1,000,000 barrels a year, in addition to the shipments by rail.

### Field in General.

In point of actual production, combined with the quality of the oil produced, Coalinga is second to no oil field in California.

As regards transportation facilities, until recently the Coalinga field has been the poorest equipped of any oil field in the State. Today she is as well equipped as any and her nearness to the San Francisco market gives her an advantage possessed by no other district.

ground, and which will soon be brought in will increase the capacity of the Coalinga field from 7,500 barrels to 11,585 barrels a day, which means a total productive yearly capacity of 4,250,000 barrels.

### TRANSPORTATION FACILITIES.

The Coalinga field has the advantage of both rail and pipeline transportation.

The Southern Pacific company has a line running direct to the town of Coalinga, which is about nine miles distant from the farthest portion of the field. Some of the producing wells are hardly



"Oil City," the first of the Coalinga field to be developed. Wells of the Coalinga and Home Oil companies, which have just contracted to deliver to the Standard 24,000 barrels of 34° gravity oil each month for five years, at an average price of 68 cents a barrel.

REPORTER desires to call the attention of its readers to the growing importance of this field by the following

### Facts and Figures.

Actual production for May, 1903, 200 barrels.

August production will exceed 5,000 barrels daily, or at the rate of 150,000 barrels a month, or 1,825,000 a year.

If all the producing wells in the field were pumping, the total production would exceed 7,500 barrels a day, or at the rate of 2,737,500 barrels per year.

There are 79 wells producing oil.

There are 16 wells "shut in" for lack of outlet facilities.

There are 15 new wells being drilled.

There are 12 new rigs ready to work.

The stock of oil above ground to day amounts to over 100,000 barrels.

Recent contracts to deliver Coalinga oil have been made to the extent of over 2,500,000 barrels.

In 1899 the total shipments from Coalinga amounted to 479,100 barrels.

Heretofore the shipments have been regulated largely by the supply of cars. Hereafter there will be no such shortage of cars, as the Standard Oil company, which has recently entered this field, has an ample supply of its own cars.

The Standard pipe-line, just completed from this field, will handle at least 20,000 barrels a week of Coalinga oil, or at the

### PRODUCTION:

On July 1st. there were in the Coalinga field seventy-nine wells which had an average minimum production of nearly 100 barrels a day.

The seventy-nine producing wells have a total production of 7,500 barrels a day. The wells that are capped for want of transportation facilities, and the wells that are being drilled on proven

four miles from Coalinga. Pipelines have been extended from different portions of the field by individual oil companies operating in the district, and these run direct from the wells into tanks erected on the line of the road. These tanks are built on artificial mounds so that they are above the track sufficiently to enable the oil to run directly from the tanks into the oil cars beneath.



Wells of California Oil Fields, Limited, with Caribou wells in foreground.





In the background is one of the receiving tanks of the Standard. The main pipe-line to Mendota runs through the depression in the hills to the right. In the foreground is barn of the California Oil Fields, Limited.

Up to the present time great difficulty has been experienced from lack of tank cars, as the Southern Pacific company has not been able to keep pace with the rapidly growing demand for oil; but the company has lately been adding very largely to the number of its tank cars, and will in the future be able to handle the oil in much greater quantities than heretofore.

The companies having pipe-lines from the field to Ora station, one mile east of Coalinga, where the tanks are located are the Pioneer Pipe-Line company, which is the Union Oil company, which has two pipe-lines, one running direct from Ora to section 28, the other to section 20; the other pipe-line companies being the Coalinga Oil company

(Chanslor & Canfield) and the and on the east the line of the



Upper Tank of the Standard. To the left is the site of Tank No. 2, now completed.

West Side line (G. W. McNear), California Oil Fields, Limited.



Some of the Oil Tanks at Ora Station.

The Southern Pacific company will either buy or build a pipeline for their own use as well as for the public.

#### TANKAGE.

As regards tankage at Ora the Home Oil, the Coalinga and the California Oil Fields, Limited each have their own steel tanks into which they empty and store their oil, while the Union Oil company has its own tanks into which is run the oil purchased by this company from the various producing companies in the field with which it has contracts. The Union will soon be a producer itself a number of wells now being drilled by the Union. In addition there are two 55,000-barrel tanks recently erected by the Southern Pacific company for storing the oil it may purchase in the field, and for the oil which comes to the company as royalties from those producing companies which have land leased from the Southern Pacific on a royalty basis. The West Side company (McNear) has also tankage at Ora.

#### COST OF TRANSPORTATION

All the above-mentioned tanks and pipe-lines are tributary to the railroad at Coalinga, distant from San Francisco 200 miles. The distance from Bakersfield to San Francisco is 314 miles, yet the rate from Coalinga to San Francisco is the same as between Bakersfield and San Francisco, viz: 42 cents per barrel. It would seem that the difference in distance should make a difference in the rates between these two points, but the difficult question and distinction between "long haul and short haul" enters in, and the Coalinga oil producers have thus far been obliged to pay the same freight on their oil as the more distant producers from Bakersfield. It may be that competition will be the only argument that will bring about a reduction.

This competition will soon be a matter of fact.

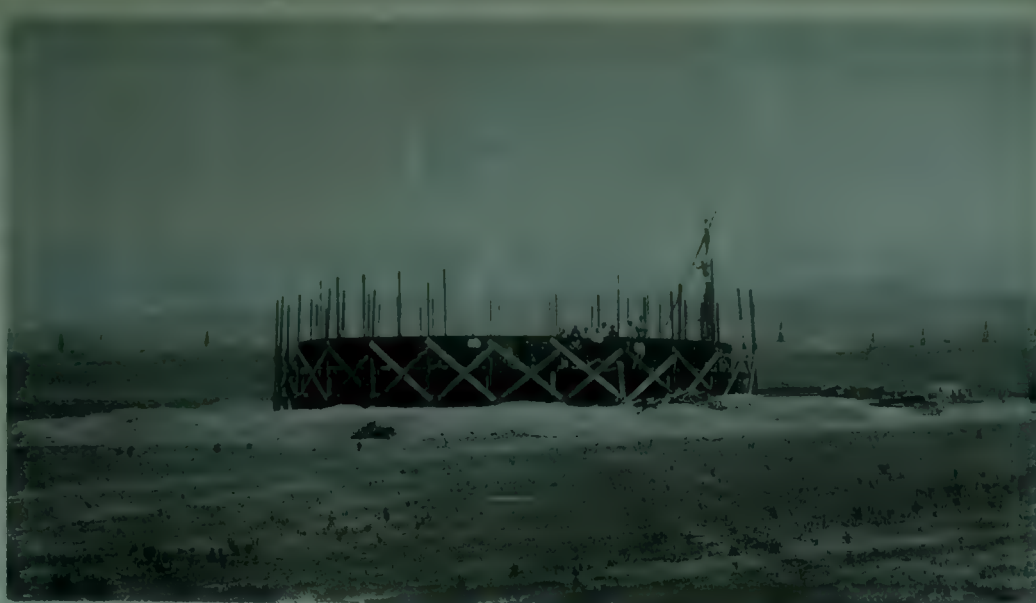
#### STANDARD IN THE FIELD.

The Standard Oil company has long had its eye on the Coalinga field. It has realized the superior



quality of its oil, and decided long ago that as soon as the production of this field warranted it would lay a pipe-line to it and thus put itself in a position where it could handle the oil both quickly and economically.

As soon as the Standard Oil company had finished its pipe-line to Bakersfield, and before the oil from Bakersfield had fairly begun flowing in the pipe, the Standard commenced work on a branch line from Mendota to the Coalinga field. Mendota is distant from Point Richmond where the Standard's refinery is located 166 miles on the Bakersfield pipe-line. Mendota is a pumping station, and there are located a number of large storage tanks. The station is only a little above the sea level. The Standard has laid a line from Mendota to a point just above the highest producing wells of the Coalinga field, distant from Mendota thirty-one miles. The Standard's tanks are 1,500 feet above the sea level. The oil from the Coalinga district will average not more than 20 degrees gravity, and



Receiving Tank of the Standard on Section 6. This tank is now completed, together with pumping station.

the line toward Mendota. The lowest tanks in the Coalinga field are fully 400 feet below the receiving tanks at the summit. From Mendota the line is practically on a dead level, and the oil has to be pumped from one station to the other. The stations

to the main line from Bakersfield, and sent rapidly on toward Point Richmond by means of the powerful pumps at the pumping stations. The Coalinga oil that is sent through the pipe-line is the 20 and 27 gravity oil, the lighter, more volatile 34 gravity oil from

lected in the tanks at Mendota. When these tanks are full and can hold no more, the oil in the Coalinga branch is shut off, the main line is re-opened, and the Bakersfield oil is sent on after the Coalinga oil. The two oils mix but very little in the pipe, the one pushing the other along. This is the method used in all existing pipe-lines and is found to work most successfully.

#### WATER SUPPLY.

In every mining field, whether it be a field where the precious metals or where petroleum is mined, the water question is all important. An abundance of water is absolutely necessary. Each rig requires a plentiful amount of water for the engine and boiler, while the actual work of drilling requires an even greater amount. On each lease also is required water for domestic purposes.

There are now in the Coalinga field over 130 rigs in actual operation. To supply them with the requisite amount of water in a country where there are absolutely no streams, and where the natural rainfall does not average six inches a year, and where the thermometer for eight months in the



Tanks of California Oil Fields, Limited, at Ora Station.

with a fall of 1,500 feet flows readily through the pipe without the aid of a pump behind it.

The picture shows the location of these tanks just above the land on which the wells of the California Oil Fields company are located. When this picture was taken only one tank had been completed. The location for the other tank had been graded and the material for the tank is lying on the ground ready for the tank builders. In the other view of this tank the material on the ground is readily discernible.

The pipe-line runs from the right of the tank through the low place in the hills, and then runs northeast as straight as possible toward Mendota.

From this upper tank the Standard has laid branch lines to the storage reservoirs of the different companies in the field below.

These reservoirs and tanks are at different elevations, but all have their pumping stations, and from these stations the oil is pumped up to the big tanks from which they flow by gravity down

are twenty-eight miles apart. Including Mendota there are five pumping stations before the oil reaches Point Richmond. The Standard can easily send 10,000 barrels daily of Coalinga oil through its pipe-line to Mendota, where the Coalinga oil is "cut in" "Oil City", from the wells of the Home Oil, the Coalinga and the Chanslor & Canfield companies, being transported from Ora station in tank cars.

While the Coalinga oil is flowing through the main pipe-line, the Bakersfield oil is being col-



East Side Pumping Plant of Coalinga Consolidated Water Company.





West Side Pumping Plant of Coalinga Consolidated Water Company.

year will average over 90° at noon, is no light task.

Nearly all the water for the Coalinga field comes from the wells of the Coalinga Consolidated Water company. This company has two groups of wells, one on the east, the other on the west side of the field. Each group has its own pumping plant and storage tanks, and pipe-lines run from the tanks to every portion of the field. The increasing demand for water, and the widely separated distances from whence come these demands, have kept the water company very busy boring new wells, putting in new engines, boilers, laying pipe-lines, and in fact keeping pace with the requirements of the field. Probably no field in the state is now better equipped with a water system than is Coalinga. The company realizes the growing importance of the field, and is doing its utmost to place itself in a condition so that it will be able to supply water to the new rigs that will multiply on every side in the next few months. The company is a Fresno corporation, managed by men of enterprise, who, when they secured the property over two years ago, realized as few at that time did the ultimate future of the Coalinga field. The company deserves great credit for what has been accomplished since they took hold of the water proposition. Although the income received from the sale of water is very considerable, it has all been expended in adding to the plant and thus placing the company in a position to supply water when and where needed.

#### Government Report.

A year ago the United States government sent one of its best geologists and oil experts to the Pacific Coast for the purpose of making a thorough and careful examination of the different oil districts in California. The name of this geologist and expert is George H. Eldridge, a man of practical as well as theoretical knowledge, and whose reputation as a scientist is unexcelled and unchallenged. Mr. Eldridge made

a long and careful examination of the Coalinga field. The longer he lingered in the district the more apparently, he thought of it. tion at this time in regard to the extent of the Coalinga field to quote the words of Mr. Eldridge: There are two distinct areas of wells—



Well of the Chicago Limited, with West Point in the rear.

In another place this article will discuss the great extent and possibilities of area of the Coalinga field. It is enough to call attention to an inner, in immediate proximity to the axis of the anticline; and an outer, of more extended area, encircling the point of the anticline in the San Pablo forma-

tion and extending well along the southwest side of the general fold.

In this sentence is an intimation only of the belief openly expressed by this great scientist that the Coalinga field has an area, the extent of which as yet is not realized by the most sanguine, and which time and the drill of the aggressive oil man will alone discover. Each month, however, is demonstrating the fact that oil exists in new sections of the district, and the boundaries of the district are steadily and rapidly extending.

The report of Mr. Eldridge is as follows:

This district extends along the eastern base of the Mount Diablo range for a distance of about thirty miles, Coalinga, the small town from which it is named, lying somewhat nearer the northern end. Three areas of oil development exist, which may be designated the Oil City field, the Kreyenhagen field and the Avenal field, but the first only is of special productiveness. Coalinga is accessible by rail from the main lines of both the Southern Pacific and the Atchison, Topeka and Santa Fe railroads.

The topographic features of the region are those of high, rugged range, bordering a desert. The line of mountain and desert passes southeast from Coalinga in a direct course for thirty miles, but immediately north of the town there is the re-entrant angle of a valley and syncline which separates the main range from one of the diagonally transverse spurs and anticlines that are such conspicuous features of the structure of the coast range. It is at the southeast end of this anticline that the Oil City petroleum field has been developed.

The formations involved in the anticline embrace at least 1,000 to 2,000 feet of massive concretionary sandstones of Tejon (Eocene) age, overlain by 800 to 1,000 feet of purple and gray shales, clays, thin sandstones and limestones, that have also been referred by some to this period; 100 to 200 feet of clays and sandstones that may prove to be lower miocene; 200



Remarkable exposure of 75 feet of oil sand on section 27, near wells of California Oil Fields, Limited.



feet of siliceous shales typical of the Monterey (upper miocene); and, unconformable with these, a great thickness of conglomerates, sandstones and clays, recognized by their fossils to be San Pablo (middle neocene). The conglomerates of the San Pablo in this region contain pebbles of quartz, black chert, jasper, serpentine, siliceous shale and sandstone, the matrix being of the same materials; the sandstones, which are the lower portion of the shales that are by some regarded as the upper member of the Tejon; the other, the lower sandstones and conglomerates of the San Pablo. It is estimated that approximately 1,500 feet of measures separate the two horizons. Owing to this distribution there are two distinct areas of wells—an inner, in immediate proximity to the axis of the anticline; and an outer, of more extended area, encircling the



Well of the "M. K. and T." Oil Company.

coarse, are chiefly quartzose; the clays are generally gypsiferous.

The Oil City field, as already suggested, is developed about the southeastern terminus of one of the diagonally transverse anticlinal spurs that extend from the coast range into the valley of the San Joaquin. The axis here dips rapidly to the southeast, and within ten miles of the higher crest of the range evidence of the fold has completely disappeared beneath the valley deposits. The line of junction between mountain and desert on the northeast side of the fold extends for twenty to thirty miles without conspicuous break. With the exception of severe crumpling in the immediate vicinity of the axis, accompanied perhaps by some faulting, and a comparatively gentle flexure on the southern periphery of the uplift in the vicinity of Oil creek, the anticline appears to be unaffected by minor folds. The measures exposed in the heart of the anticline are the massive Tejon sandstones. Encircling these are the overlying shales, and these in turn are followed by the heavy and resistant conglomerates and sands of the San Pablo.

The oil-bearing horizons of this field are two: one, a sandstone in

point of the anticline in the San Pablo formation and extending well along the southwest side of the general fold. The oil from the shales regarded as Tejon is of



Well of R. C. Baker.

greenish color and varies in gravity from  $33^{\circ}$  to  $38^{\circ}$  B; that from horizons in the San Pablo is brownish black and of a gravity from  $16^{\circ}$  to  $24^{\circ}$  B., the higher in the eastern portion of the field. The production from both horizons is large. The depth of wells varies from 800 to 2,000 feet.

#### Analysis of the Oil.

Having seen in the above what a United States geologist says as to the formation and extent of the Coalinga field, let us go a little further in the way of scientific reports and see what another scientist says in regard to the kind of oil found in the district, and the elements they contain.

Paul W. Prutzman is one of the ablest chemists in California. He is an all-round scientist in his line, but his specialty is oil. He has made a careful and continued study of the different oils pro-

duced in California—and they are many—and has spent days and weeks, months and years, in studying what elements these oils contain, to what use the various oils can be put, how they can best be treated in order to yield cheaply the most valuable products, and he has established himself so that he is an authority on the subject of "Oil," and what he says and what he writes, and the advice he gives, is worthy of careful consideration.

The following article on the "Analysis of Coalinga Oils" was prepared especially by Mr. Prutzman for this issue of the PACIFIC OIL REPORTER:

#### THE OILS OF COALINGA.

The petroleum produced in the Coalinga field varies more widely, in all probability, than that of any other area of equal size in the state. The extremes are  $11.5^{\circ}$  in the southwest extension of the



Pumping Jack of the California Oil Fields, Limited.





Finishing a tank for the Coalinga field, by Kutner, Goldstein Co., at Hanford. William Wallace, who has charge of this department, in the center of the group.

field, to 45° or higher in the Oil City district, and about 31° on the southeastern end of the "28" pool. The refining values of the oils differ even more widely than would be indicated by the gravities.

The Coalinga field is divided into four well marked districts, or "pools" as they would be termed in the east: The Southwest Extension, the West Side, the Oil City, and the Twenty-Eight. The names are not recognized titles, but will indicate the divisions intended with sufficient clearness to anyone familiar with the map of the field in general. However they may be connected by later developments, they are at present quite distinct and well defined.

#### SOUTHWEST EXTENSION.

The Southwest Extension comprises at present but three wells, on 23 and 26, 20-14. The St. Paul, on 23, has the heaviest oil in the field so far as I know (11.5° gravity), while the Baker well is 12.5° and the Caledonian 12.6°. The flash point of the latter is 322° F. The old May well, on the NW. ¼ of 14, 20-14, is said to have yielded a little light oil, but just now the only oil in sight is a heavy black oil, yielding from 35 to 40 per cent of asphalt (D) and therefore specially suitable to the manufacture of that substance, but almost too heavy for fuel purposes.

#### WEST SIDE POOL.

The West Side pool comprises sections 13, 19-15; 1, 20-14, and 6, 20-15, with two wells on 36, 19-14. The oils here grow lighter as we go down the dip of the formation, which appears to be a little south of east, the wells in the NE. ¼ of 31 being about 700 feet deep, while those on the eastern side of

the developed strip are nearer a thousand. Some typical samples from this group of wells are tabulated below:

Sample.	Gravity.	Viscosity.	Flash
Fresno-San Francisco No. 2.....	14.9°	296	278°
Fresno-San Francisco No. 1.....	15.6°		
Confidence No. 4.....	16.7°		248°
El Capitan No. 1.....	16.8°	158	
New S. F. Crude No. 1.....	17.2°		220°
Esperanza No. 1 and No. 2.....	17.8°	68	

The oils below 16° gravity would be refinable in the manner practiced at Kern, that is, for asphalt and distillate. They yield almost no kerosene. The lighter oils give

a small yield of kerosene, but not a paying quantity; they could hardly be refined under present conditions. The yield of asphalt from the heaviest of these oils is about 30 per cent, from the lightest about 20 per cent.

These oils come to Ora station through the West Side or "McNear" pipe-line, the mixture having an average gravity of 16°, viscosity 150, flash about 210°. Like most pipe-line oils it varies somewhat, but in general is an excellent fuel oil.

#### OIL CITY POOL.

The Oil City pool is located in section 20, 19-15, with two wells in section 17. The producing

ground here is very small and well defined, and draws oil from a very much lower stratum than that reached by the wells in the outlying districts. The main yield of oil here is approximately 33° gravity, dark green by reflected, red by transmitted light. While it contains but a trace of asphalt, yet in all other respects it closely resembles the other asphaltic oils of the state, and seems to have the same chemical constitution. The figures on this oil are about as follows:

Gravity, 33° to 34° Baume.

Viscosity, 1.0.

Gasoline.....	74°	1.0%
Benzine.....	63°	4.0%
Engine Distillate.....	52°	6.4%
Kerosene.....	42°	35.8%
Heavier and Loss.....		52.8%

Total.....100.0

Unfortunately, however, the flash point of the kerosene made by the usual cuts is very low, about 80°. To raise the flash point to the 110° required in commerce it is necessary to cut the lighter part of the kerosene into the engine distillate, which necessitates running a corresponding amount of the heavy end of the kerosene into the heavy distillate, in order to keep the gravity where it belongs. This reduces the kerosene from 35 per cent to some 10 or 12 per cent, about half of the difference going into engine distillate, the other half into heavy distillate. Practically, having regard to all commercial requirements, the best analysis of the oil would be about as follows:

Engine Distillate.....	48°	20%
Kerosene.....	42°	12%
Stove Oil.....	33°	38%
Heavier Oil and Loss.....		30%

Total.....100

The present prices of the crude and of its products do not warrant



Wells of the Caribou Oil Company, with the Sauer Dough well in the rear.





Wells of the Union and the Wabash Oil Companies.

its handling in this manner on any large scale, but of course when it is said that the oil is not refinable the expression is only relative. Such products as the oil yields are of good quality and easily made, the difficulty is merely a matter of price. As a matter of fact a large amount of the oil has been refined, principally for engine distillate. The present use of this oil is principally as fuel in crude oil engines, the operation of which is too well known to need any explanation. As a gas enriching agent it has been largely supplanted by distillates, and in the newer processes by the heavier and cheaper crude oils.

The Zenith well, in the SE. ¼ of 20, 19 15, and probably other wells, had seepages of a very light oil, gravity from 43° to 45°. This oil, which closely resembles the 33° oil, would, if treated in the manner above, give the following products:

Engine Distillate.....	48°	59%
Kerosene .....	42°	20%
Heavier Oil and Loss.....		21%

Total..... 100

This oil was never developed in commercial quantities. It is probably merely a seepage from the main body of oil underlying Oil City, purified by filtration through a thick bed of sandy shale or sandstone.

The Phoenix, in the same quarter, got a small quantity of very heavy oil, from 12° to 14°, in two shallow wells, probably from partly evaporated seepages of lighter oil either from the Oil City sands or from those of section 28. The supply was soon exhausted.

TWENTY-EIGHT POOL.

Twenty-eight pool: The fourth pool is proven over most of section 28, the SE. ¼ of 21, SW. ¼ of 22 and NW. ¼ of 27, 19-15. The formation, which seems to be con-

tinuous, dips southeast by east, and consists, so far as known, of two sands. Contrary to the usual rule, the heavier oil is in the lower sand, and runs about the same over the entire territory drilled, ranging only from 19° to 22° gravity. Two typical samples have the following analyses:

Section 22, 19-15:		
Gravity, 18.7°.		
Viscosity, 29.2.		
Flash, 180°.		
Engine Distillate.....	48°	0.5%
Kerosene.....	42°	2.5%
Stove Oil.....	33°	5.0%
Heavier Oil and Loss.....		72.0%
D Asphalt.....		20.0%
Total.....		100.0

Section 27, 19 15.		
Gravity, 22.4°.		
Viscosity, 10.0.		
Flash, 140°.		

Engine Distillate.....	48°	2.0%
Kerosene .....	42°	12.0%
Stove Oil.....	33°	12.0%
Heavier Oil and Loss.....		58.0%
D Asphalt.....		16.0%
Total .....		100.0

This lower sand oil, with a little from the top sand, goes to Ora station through the Pioneer pipe-line, and is marketed as Ora crude. This mixed oil varies somewhat, but averages about as follows:

Ora crude:		
Gravity, 20°.		
Viscosity, 30.		
Flash, 165°.		
Engine Distillate.....	48°	3.5%
Kerosene.....	42°	4.5%
Stove Oil.....	33°	14.5%
Heavier Oil and Loss.....		57.5%
D Asphalt.....		20.0%
Total.....		100.0

The light oil from the top sand varies greatly, becoming lighter as drilling goes down the dip of the sand. In the SW. ¼ of 22 the gravity is about 22°, while near the center of the west line of 27 it is said to be as high as 31°. A sample from section 22 has the following analysis:

Gravity, 21.7°.		
Viscosity, 3.8.		
Benzine .....	62°	3.5%
Engine Distillate.....	48°	8.0%
Kerosene .....	42°	10.0%
Stove Oil.....	33°	6.0%
Heavier Oil and Loss .....		57.5%
D Asphalt.....		15.0%
Total.....		100.0

As mixed, this top sand oil shows about the following figures:

Gravity, 26°.		
Benzine .....	63°	4.5%
Engine Distillate.....	52°	7.5%
Kerosene ..	44°	15.0%
Stove Oil....	33°	15.0%
Heavier Oil and Loss.....		44.5%
D Asphalt.....		13.5%
Total .....		100.0

These figures were made about a year ago, and it is said that this oil is now running lighter, which would increase somewhat the yield of the lighter products. As California oils go, this would be considered a good refining oil.

PAUL, W. PRUTZMAN.

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Captain Frank Barrett, the Coalinga Pioneer.

### Early History.

Thus far this article has dealt mainly with general and scientific facts. Let us now deal with individual and more particular data, showing the early history of the field, and its slow and careful development in the face of great obstacles and discouragements.

#### CAPTAIN FRANK BARRETT.

Perhaps no one is better acquainted with the early history of the Coalinga field than Captain Frank Barrett, to whom should be given much of the credit for the enterprise and perseverance which

and then abandoned the territory; for what reason they abandoned, or what was the product of the wells, only they themselves know. Bulletin No. 19 of the State Mineralogist's report gives the product of the wells as being from four to ten barrels.

"In May, 1895, at the request of my neighbor, W. D. LaGrange, of Selma, I made a trip through the country and visited the spot now known as 'Oil City.' I camped just about 100 feet above the north line of section 20, on section 17. I am sure I will never forget the

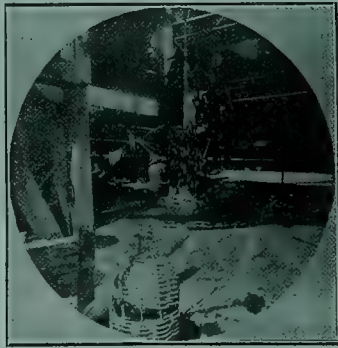
producers, one yielding 25 barrels and the other 65 barrels daily.

"About six months after I went in and commenced operating, Chanslor, Canfield & Connan, from Los Angeles, came in with a rig and commenced drilling on section 17. Their wells were not much of a success as oil wells. My recollection is that the best well they had did not produce over 15 barrels. They were seriously handicapped by old machinery and lack of funds, but they worked hard.

"I have seen several stories going the rounds that their first



First house in Oil City.



Capt. Barrett's first flow of oil.



Second flowing well at Oil City.

night. It blew a perfect tornado, and I thought the wagon would blow over on us.

"I became so impressed with

financial help came through Dr. Hayward; I desire to correct that statement. These gentlemen appealed to me for aid. I made

time Dr. Hayward had bought Connan's interest and became a partner with Chanslor and Canfield. All that country had been filed upon by homesteaders when Smith's decision became known, section 20 included. The Producers and Consumers company made quit claim deeds to the S.  $\frac{1}{2}$  of section 20 for a release of homestead on the NW.  $\frac{1}{4}$ . The Producers and Consumers Oil company then entered into a lease with Chanslor & Hayward for the NW.  $\frac{1}{4}$  and I individually gave them one-tenth interest in the Producers and Consumers company to accept the lease, which action, I think they will admit, was the foundation of their fortunes. I then obtained a lease of



The Main Street of Coalinga, Cal.

finally resulted in discovering "Oil City", and which opened a new page in the history of California's oil fields. A few days ago Captain Barrett was asked to give an account of the early days of the Coalinga field, and this was his reply:

"So you want to know the history of the Coalinga oil field? I have told it so often it has got to be a chestnut. Well, here goes:

"In 1892 Rowland & Lacey, of Los Angeles, went into the Coalinga field and drilled four wells,

the conditions that I then and there made up my mind to drill a well.

"I organized the Producers and Consumers Oil company, to operate on section 20, and interested some eastern people with me. I made a contract with Captain Small, of Stockton, to drill one well, and later contracted with Messrs. Hendrickson & Henage, of Los Angeles, for two more wells. The Small well was a failure, but the others drilled by Hendrickson & Henage were good

three trips to Fresno and finally negotiated a loan through the Bank of Central California, Louis Einstein president, for \$2,500, agreeing with the bank that if they did not pay it at maturity I would pay it in thirty days thereafter.

"Of course everyone is familiar with the troubles occasioned by the 'famous' (infamous) decision of Hoke Smith, Secretary of the Interior, which decision threw my company, Producers and Consumers, into trouble. In the mean-

the NE.  $\frac{1}{4}$  from R. O. Miller, trustee for the homesteaders, and organized the Home Oil company in connection with G. W. Terrill, I. F. Poston (both of whom are now dead), Walter Scott and C. M. Kilbourn. I then incorporated the Pioneer Pipe-Line company, the first oil-carrying line in the field. It was nearly ten miles long, running from Oil City to Ora station, so named after my youngest daughter.

"In 1898 I sold my Producers and Consumers stock to L. L.



Testing gravity of first oil.



Station of the Southern Pacific Railroad at Coalinga, 200 miles from San Francisco.



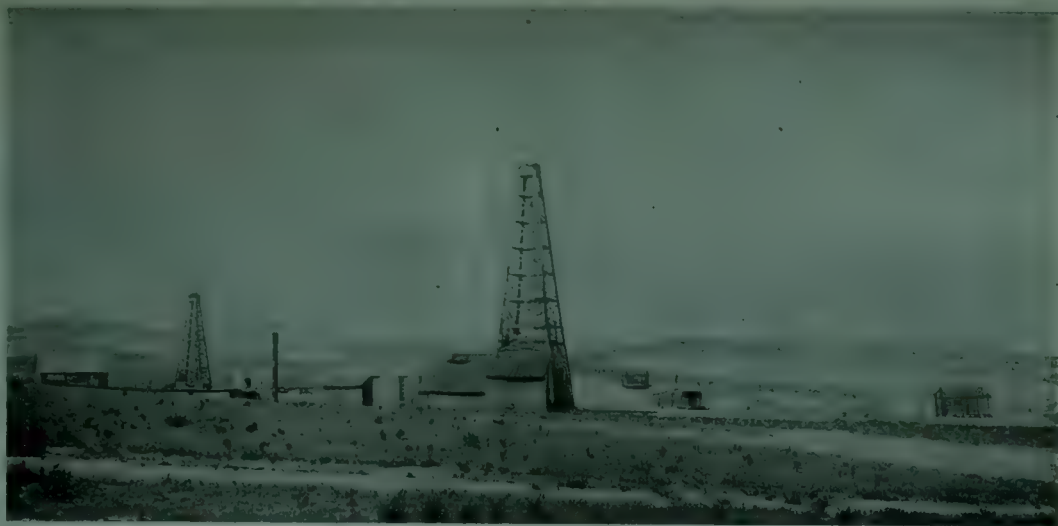
Cory of Fresno, my Home Oil stock to K. W. Brown and pipeline stock to E. Jacobs and retired from the field.

"You now have all the information I have concerning the Coalinga field."

#### CHANSLOR & CANFIELD.

The names of J. A. Chanslor and C. A. Canfield will ever be identified with the Coalinga field. It is to them that the real development of the field is due, as they were the ones who first brought in the big producing wells, and who started the systematic development work which resulted in opening up a field that is in point of capabilities, second to no field in the State.

They had had considerable experience in Southern oil fields and were attracted to the Coalinga field by the work done there by Lacey & Roland of Los Angeles, who had put down two wells on section 17, had got good oil but not in paying quantities.



Wells of Commercial Petroleum, with 8,000-barrel cement reservoir to the right.

ward the south, following the trend of the sand. We finally struck this sand at a depth of 1,600 feet, and stopped drilling. This was our best well.

"After drilling a good many

a well. The market for this light 340 oil is limited, and although it commands a good price, compared with the heavy fuel oil, not so much is used.

"We drilled steadily for a year

Hayward made this loan, or rather bought into the business to the extent of \$3,000, we bought the interest back, and paid him \$100,000 for it."

"We have now eleven wells, but three of them are not much account. The average daily production is just about 1,000 barrels and it comes from eight wells."

It is now an old story that three weeks ago Chanslor & Canfield and the Home Oil company each made a contract with the Standard Oil company to deliver to the latter 12,000 barrels of light 340 oil every month for a period of five years. The price was 65 cents a barrel for the first two years, and 70 cents a barrel for the last three years. The total amount of money to be paid by the Standard is \$979,200.

The Home Oil and the Chanslor & Canfield companies have each about 50,000-barrel tankage. Delivery of the oil to the Standard commenced June 15th. This light oil will all be transported in tank cars. Chanslor & Canfield are the owners of the south half of section 17, and under the name of the Coalinga Oil company own northeast quarter of 20. The officers of the Coalinga Oil company are:

President, J. A. Chanslor; vice-president, C. A. Canfield; secre-



Wells of the Maine State and McNear Companies.

Said Mr. Chanslor recently: "The first two wells we put down were small producers, but the oil was good, and there was enough of it to encourage us to continue. We thought we would do better on section 20, so we went there, getting the land from Captain Barrett, who had drilled there for the Producers and Consumers. Captain Barrett had two wells, small producers, near the line of section 17.

"We went to work, and worked as hard as we knew how. We did not have the best rig in the world, nor everything to work with, but we staid with it, and at the depth of 980 feet we struck our first big well.

"This was on the Fourth of July, 1896.

"It was good for 200 barrels a day.

"After this we went across the canyon and got a still better well. This we called our No. 2 well.

"We kept on drilling wells to-

wells at Oil City it is safe to say that on an average it takes six months to complete a well. Drilling is difficult on account of the gas. Drilling is expensive, as it costs nearly \$25,000 to complete

before we got our big Fourth of July well.

"We got short of money and Doctor Hayward loaned us \$3,000 for an interest in the business. In a year and a half after Dr.



Wells of the Philadelphia-San Francisco and Fresno-San Francisco Companies.





Wells of the Hanford Oil Company, on Section 28.

tary, E. W. Mason. The other directors are: W. G. Chanslor and E. Kauntze, of Hanford.

#### HOME OIL COMPANY.

The officers of the Home Oil company which made a contract with the Standard similar to that made by the Coalinga Oil company are: President, R. V. Ellis; vice-president, J. E. Augsbury; secretary, R. T. Staley. The directors are: R. V. Ellis, J. E. Augsbury, Henry Rosenfeld, A. D. King and F. J. Carman.

#### Hanford Oil Company.

The Hanford Oil company is one of the wealthiest and most successful oil companies now operating in the Coalinga or in any other California oil field. It owns all of the celebrated section 28 in the Coalinga field. This section now has on it twenty-six producing wells which will average nearly if not quite 200 barrels per day. Most of the oil produced thus far is of 22° gravity, but there is every reason to believe that the light 27° oil will be found on this section, and wells are already being drilled after this light oil.

The Hanford Oil company was organized on November 16, 1898. As its name implies it is a Hanford company, organized in that thriving little city. The president and field manager is Dan Finn of Hanford; vice-president, E. M. Walsh, of San Francisco; other directors are: J. J. Mooney of Visalia, Herman Nathan of San Francisco, J. F. Pryor, S. Rehoffer and P. McRae of Hanford. The company has as lessees the Twenty-eight Oil company, the Oil City, the Independence, which is a sublease of the Twenty-eight, and the Fauna which purchased a lease interest in forty acres from the Oil City. The royalty paid to the Hanford is one-eighth. There are twenty-six wells already completed but drilling operations are continuing uninterruptedly, and before the year is out the number of wells will exceed thirty. The wells now on the section have an average monthly yield of

60,000 barrels. The Hanford receives its royalties either in oil or in cash. The Hanford wells average about 930 feet in depth and have a daily average production of 165 barrels, which production can be increased very materially by deepening the wells. At present the wells are pumped on the beam, but when the number of wells is increased sufficiently a pumping jack will be installed.

The management of this company has always held the idea that the oil of the Coalinga field had a high market value, and the company has never been willing to sell its oil at a 20 cent figure believing that 22 gravity oil was worth more. The company believes that oil in the Coalinga field will soon be commanding a much higher price.

The stock of this company is held at \$122 per share. There are only 2,000 shares and the par value is \$10 per share. It is hard to get at that figure. The company never sold any stock, nor had any assessment.

#### Oil City Petroleum Co.

The Oil City Petroleum company has an acreage of 320 acres, leased from the Hanford Oil company on section 28, 19-15. The land lies in the southeast quarter, being all of this quarter, and the remainder in west half of the west half. This land is leased

from the Hanford on an eighth royalty.

On the southeast quarter the Oil City Petroleum company has already sunk seven well, all producers, and will soon have a number of others, as the company has made advantageous contracts with the Standard Oil company, which will take all the oil they will be able to produce for some time.

The Oil City Petroleum company formerly leased eighty acres of its land to the California Rock Oil company, which allowed the lease to lapse, and this land is now held by the Oil City Petroleum company. The company has sold a lease of forty acres to the Fauna Oil company, which is now sinking a deep well in the northwest corner of the section, with every indication for getting oil.

The officers of the Oil City Petroleum company are: Truman G. Hart, president; A. Hall, vice-president; Samuel Shannon, superintendent; L. L. Cory, W. H. Ingels, J. C. Pottle, and Jacob Clark, secretary. The company is a Fresno company; the management is the same as that of the Twenty-eight Oil company, and the superintendent in the field is Mr. Sam Shannon. The company has a low capitalization of \$500,000—500,000 shares at \$1 per share. The stock is all issued and the company is neither selling

land or stock. It has a large acreage of producing land and its future is very bright. The stock of this company is now quoted on the market at the low price of 35 cents, much below its real worth.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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Wells of Oil City Petroleum and Independence Oil Companies.



**"28" Oil Company.**

The "28" Oil company is one of the most important of the producing companies in the Coalinga oil field. It is a Fresno company and was organized in that city in October, 1900. It has 160 acres of proven oil land, leased from the Hanford Oil company on a royalty of only one-eighth. The land lies in a compact body, and is the northeast quarter of section 28, township 19, range 15. Of this 160 acres the company has sub leased forty acres to the Independence Oil company, of Coalinga, which has eight producing wells and is drilling more as rapidly as possible in order to obtain oil for filling desirable contracts recently made with the Standard Oil company.

The "28" Oil company now has seven producing wells all

The oil produced is about a 22 gravity oil, which is not only a very superior fuel oil, but is also adapted for refining purposes, though it does not command such a high price as the lighter oil of 28° gravity.

The production of the wells of the "28" Oil company differs. The first wells were drilled only into the first sand and were consequently only small producers, averaging only about fifty barrels to the well. Experience proved that a second sand underlay the first sand from which the first oil was taken, and that this second sand could be reached by drilling only about 300 feet deeper. Consequently the latter wells have been drilled to the second sand, while it has been proved that the shallow wells first drilled can easily be deepened

to the 100 foot level, light, sandy soil: 320 feet, blue sand; 300 feet, blue clay; 65 feet, blue clay and sand; 415 feet sand and shale; 15 feet coarse sand; 105 feet, oil sand. Total depth of well, 1,320 feet.

Of the wells seven are in the formation which gives the 22 gravity oil. These wells when completed to the second sand average not less than 200 barrels per day, some of them going much higher than that. The eighth well, now being drilled in the same strike as the wells of the California Oil Fields, Limited, which yield the 28 gravity oil worth at the wells not less than 70 cents a barrel. This well will reach a depth of about 1,220 feet. Mr. Sam Shannon, one of the directors of the company, is the superintendent and field manager.

**The Independence.**

The Independence Oil company is one of the lessees of the Hanford Oil company, from which it obtained forty acres on a 20 per cent royalty. Of this the Independence has leased ten acres to the Stockholders' Oil company on a 33 $\frac{1}{3}$  per cent royalty.

The Independence has now eight producing wells which give an average yield of nearly if not quite 2,000 barrels per day. This oil is of excellent quality, and the company has made several very advantageous contracts recently, particularly with the Standard Oil company.

The office of the Independence Oil company is in the Parrott building, San Francisco, room 500, and the officers are: Frank Pauson, president; A. Feist, vice-president; J. W. Pauson, secre-



Independence wells in foreground; "28" wells in center; California Oil Fields, Limited, to the left.

of which are good producers of a fine quality of oil. The company has made a very advantageous contract with the Standard Oil company, which will enable it to dispose of all the oil it can produce for nearly if not quite a year. The result of this contract will be that the company at the end of the year will have paid for all the improvements it has made in the line of drilling wells, putting up tanks, building pipe-lines, establishing pumping plants, etc., and will still have money on hand to enable it to pay substantial dividends to its stockholders.

The company is capitalized for only \$600,000—60,000 shares of a par value of \$10 each. At the present writing the stock is held on the floor of the California Stock Exchange at about \$4.50. It is believed the stock will soon reach par.

without having to increase the size of the casing. It is the intention of the company to continue drilling until a large number of wells have been drilled. The latest wells will be sunk only for the light oil.

The field is peculiar and differs from all other fields in the State in that on a certain portion of this section the light oil is found to overlie the heavy oil. Usually the heavy oil is struck before the light oil, but on the east side of section 28 the contrary is the case. The usual order is reversed on the east side of 28, and this condition is not found in any other part of the field.

The average depth of the "28" wells is 1,320 feet. Herewith is given the "log" of well No. 6, which will give an experienced oil man a good idea of the formation: From the surface

He has been in the field almost constantly for three years, and is one of the most careful and successful operators in the field. The officers of the Oil "28" company are: T. G. Hart, president; A. Hall, vice-president; S. Shannon, L. L. Cory, and Jacob Clark, secretary. The company is not selling land or leasing it, and has no stock for sale.

**Office Removal.**

The office of the Caribou Oil and Mining company has been removed from the Nevada Block to 330 Pine street, room 36, San Francisco.

H. H. HART, Pres.

W. H. SIGOURNEY, Sec'y.

D. M. KENT, Asst. Sec'y.

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tary and treasurer, the other directors being Wm. Samuel, Jno. B. Carson, and S. F. Earl. The company is capitalized at 600,000 shares, par value \$1.

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# Map of the Coalinga District



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:

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SATURDAY.....JULY 4, 1903

This edition of the PACIFIC OIL REPORTER will be a revelation to those who have not kept themselves posted on the developments of the Coalinga oil field.

We feel justified in saying, and we believe that the facts will bear us out, that the Coalinga field is second in importance to no field in the State.

It has not the present production that the Kern River field has. There is reason for this however. The Coalinga field has been sadly handicapped ever since it was opened on account of lack of transportation. The Kern River field has always been tributary to two railroads. A dozen trains a day have taken the oil from this field, and have transported it south as well as north. The Coalinga field has had but one train daily, and this train has carried only those tank cars that could be spared from the other fields. The importance of this field as a producer of high grade oil has been greatly overlooked. The field has had no encouragement to cause its development.

Its importance was not grasped even by the Standard Oil company until very recently, and when this company first decided to enter the field it did not half appreciate the productive ability of the field. When it did enter the field, and its agents began to realize what the field could do, and the superior quality of the oil it could produce, it immediately increased its plans, and added to

its proposed capacity of handling the oil by one half. Its pipe-lines will be laid from the main storage tanks to all portions of the field. It has suddenly become aware that the Coalinga field, which has been sending out 500,000 barrels of oil a year can send out twice and three times that amount, and that the oil is more valuable than the oil from other districts, is more easily handled, is more easily and more quickly and more economically sent through the pipe-lines, is as good a fuel oil as that from other fields, and is fit for refining, which the oil from other fields, is not fit for except for asphaltum purposes. In fact the Standard Oil company has suddenly realized that the Coalinga field was the field that could supply them with the oil they wanted and in the quantities they needed. The result is that from now on the Standard will be a large patron of the Coalinga field. They have built a pipe-line to the field which will carry 10,-

At present it seems to run almost in a semi-circle around the town of Coalinga from the northeast to the southwest. How far to the northeast and how far to the southwest no one but the oil man with his drill can determine. It is believed by many that the Coalinga field will yet become the biggest and richest field in the State.

## Four Good Companies.

There are four companies operating in the southern portion of the field that deserve special mention on account of the success they have achieved and on account of the energy and enterprise that has characterized the management of these companies.

The Philadelphia and San Francisco has eighty acres of the lower portion of section 36, has two producing wells and is drilling No. 3. The office is in Philadelphia.

The York-Coalinga has forty acres in section 6, has two wells

and will soon start No. 3. The office is at York, Pa.

The Penn-Coalinga has 120 acres in section 1, has two producing wells, of which No. 2 is said to be the largest well in the field. More wells will be drilled at once. The office is at Carlisle, Pa.

Section Seven company has forty-five acres in section 7, and has just secured eighty acres in section 25 near the Caledonian well. No. 1 of section 7 has passed through first oil sand at 1,030 feet and will soon be completed. There is every indication that this well will equal Penn-Coalinga No. 2. No. 2 is drilling. The office of the company is at New Bloomfield, Pa.

## Wyoming Oil Companies.

We can furnish you nice folders with the map of Uinta county oil fields on one side, and on the other whatever advertising matter you may desire.

We have half-tone cuts of the field which can be used in the folder free of charge. On the map your property will be shown in colors.

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## Important Announcement

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ooo barrels a day. Their tank cars are now taking the light oil out of the field, and their contracts for this light oil, which must be shipped in tank cars, will amount to 24,000 barrels a month for at least five years, and there is every probability that the amount of these shipments will be largely increased. The day of prosperity has dawned for the Coalinga field. New companies are coming in. New wells are being drilled. Each month sees the proven territory increasing as the wells one after another, are being brought in on new ground. Land that a year ago was quoted at \$100 an acre is now withdrawn from the market, or else is offered at prohibitory high figures. The man or the company that can enter the field now by securing good territory is fortunate.

No one knows yet the extent of this field. It may go north much farther than the wells are located that have yet been drilled. It undoubtedly extends for some miles further toward the southwest.



## THE RIGHT KIND OF A MINING PROPOSITION.

Tunnels Nos. 1, 2 and 3 are now being run on the "Omah" mine, taking out high grade ore. The company has low capitalization, \$100,000; high grade ore; ample wood and water on the property; no debts; three miles from railroad; company officered by bankers and practical mining men of San Francisco; thoroughly competent superintendent in charge; no salaries to officers; no promotion stock. Especially important is the fact that enough ore is being taken from the tunnels each day to pay all expenses of operation, leaving a very large net amount for dividends of 1% beginning in October, with the possibility of 5% before January 1, 1904.

If you are displeased with your purchase of stock, return it inside of 90 days and we will buy it back at the price you paid us for it. Our reasons for such an offer: we are satisfied with 1% dividend per month with possibility of 5%.

Small amount of stock for sale at 5 cents per share.

Remit direct to us or send for further particulars.

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Mention this paper.





The National Supply Company, Oil Well Supplies, Coalinga.

### National Supply Company.

The increasing development and the extension of the Coalinga field with the incoming of the Standard pipe-line, has brought this field to the attention of the National Supply company, and in response it has recently opened a branch supply store here.

The National Supply company is one of the largest manufacturers and dealers in oil well supplies in the world. Its stores and branches number over fifty and are located in nearly every oil field in the country with head offices in Toledo, Ohio, and Pittsburg, Pa. The Pacific Coast department of this company is under the able management of Mr. C. B. Barnes, with headquarters in Los Angeles. The extent of the business done by this company in the Pacific states can be estimated from the recent shipment of a cargo consisting of an entire train carrying oil well supplies valued at \$75,000. The freight charge alone was \$5,000. This shipment will be distributed among the various branch stores in Bakersfield, McKittrick, Coalinga, and Los Angeles.

This company has only recently opened up the branch store in Coalinga, but by its activities and the amount of building it has done, with an immense stock that is being poured in every day, it brings to Coalinga a finely and completely equipped supply house. The large storehouse of the company is situated almost directly opposite the depot and contains a large supply of tools, engines, cables, rig irons, etc., and joining is its pipe-yard which is well stocked with all sizes of pipe, casing, drive-pipe, and tubing of the well known Boston brand made by the National Tube company. Within the past month the company has purchased the Coalinga Oil company's building opposite the depot which will be altered and additions made so as to fit it up for a first-class modern supply

store. This will also contain the office of the local representative. In the store will be kept the smaller fittings, small tools, and different kinds of brass goods used in and about oil wells.

The office and the store is conveniently centrally located, and the warehouse and yard are easily accessible by teams. Although the company has been in the field but a comparatively short time, it has already placed large consignments to operating companies. The increasing demands that are inevitable to come with the large amount of drilling that is being done here, assures the National Supply company of success. It is now completely supplied with whatever is needed in oil well supplies and can fill all orders promptly.

The company's manager, Mr. C. R. Chase, has had much experi-

ence in the oil well supply business. He comes here from McKittrick where he has successfully managed the branch store of his company for several years and built up a large business. Mr. Chase is assisted by Mr. C. C. Hilliard, who has recently come from West Virginia where he was engaged in the same business for years. The management of the house in Coalinga is ready to give estimates and quote prices on all supplies, and is ready to render any assistance it can for oil men and those interested in the oil industry.

The reputation of this company, both in this State and throughout the East, and the connection of such men as Tim Spellacy and C. B. Barnes is sufficient recommendation and guarantee to any operator or prospective operator in this field. The policy of the National Sup-

ply company has always been to make the interest of the oil producer their own and this liberal policy accounts to a great extent for their success in California.

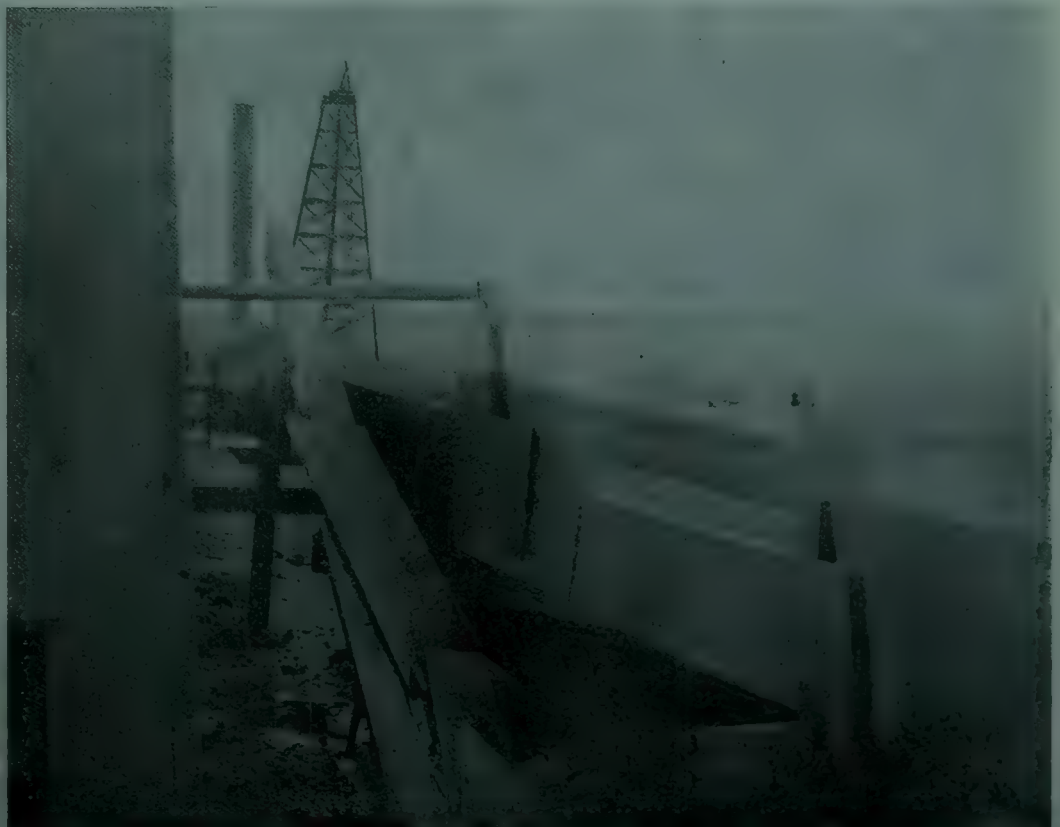
### Esperanza Oil and Gas Co.

The Esperanza Oil and Gas company was organized on September 25, 1899, with a capital stock of 1,250 shares, of a par value of \$100 each, 1,000 shares being issued. Later the number of shares was increased to 125,000 shares of the par value of \$1 each.

The company operated first in the district known as the Kettlemen Hills, where there were very favorable oil indications, and which may yet prove to be a great oil district when wells are put down to a sufficient depth. In the Kettlemen district the Esperanza company drilled two wells, but got nothing.

In February, 1901, the company moved their rig and outfit from the Kettlemen Hills to the Coalinga district onto the NW  $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of section 6, township 20 south, range 15 east. This property is leased by the Esperanza for twenty years on a one-fourth royalty.

On this property the company now has two wells with a capacity of 800 barrels a day. The wells flow at this rate, and are not and have not been pumped. The company is disposing of all its oil. A third well is being drilled and is being rapidly completed. The well is drilled under contract by Brown & Carrigan, who drilled the other two wells. The company has a first-class outfit of rigs, tools, cook and bunk house, office, storage tanks with a capacity of over 4,000 barrels, etc., and the tanks are connected by pipe-line



Flowing Well of the Esperanza Oil Company. This well is flowing, not pumping, at the rate of 400 barrels a day.





Wells Nos. 1, 2 and 3 of the Esperanza Oil Company.

so that oil can be delivered either to the railroad at Ora, or to the tanks of the Standard Oil company. The big storage tanks and pumping stations of the Standard Oil company are close at hand, so that the company has more than the usual facilities for storing and shipping oil. The oil is a 20 gravity oil, is of a refining quality, can be easily piped, runs easily and commands the highest market price for this quality of oil. The company has made a few contracts for the sale of its oil, and has been delivering oil since the 1st of August, 1902. The company is entirely free of debt, and

The principal place of business is at Hanford, Kings county, and its directors are as follows: J. B. Newport, Hanford; G. E. Shore, Lemoore; D. S. Fish, Hanford; J. N. Hoyt, Hanford; W. W. Parlin, Hanford; B. L. Barney, Hanford; W. J. Newport, Hanford.

The names of the officers are: J. B. Newport, president, Hanford; G. E. Shore, vice-president, Lemoore; R. J. King, superintendent, Coalinga; Geo. L. Bliss, secretary, Hanford; Farmers and Merchants Bank, treasurer, Hanford.

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During the last year much of the land owned by the Pleasant Valley Farming company has proved to be exceedingly valuable as oil land.

Some time ago the company leased a portion of its land, notably a portion of section 6 in township 20 to the Esperanza, the Mercantile Crude, the York Coalinga, the New San Francisco Crude and other companies, all of which have brought in fine wells. It is sufficient to say that the two last wells of the Esperanza Oil company are to-day flowing at the rate of over 800 barrels a day. The wells of the Penn-Coalinga

pany this company has concluded to go into the oil business itself, and that if anyone is to use the oil which underlies their land that one might just as well be themselves as any other company. Consequently the Pleasant Valley company, owning so much valuable oil land, has decided to drill wells themselves, and the company has made contracts which will result in the immediate drilling of several wells, which will result not only in protecting its side lines but will give the company a nice income from the sale of oil.

In all the company owns about 2,000 acres of valuable oil land, situated in section 6, which it owns in its entirety, part of 12, all of 11, one-half of 2, three-fourths of 18—in all about 2,000 acres of land all of which is good oil land. As stock and farming land this land had a nominal value only, as the scarcity of rainfall made farming a very risky business. But as oil land this land is exceedingly valuable, on account of the fact that the land is proven oil land, and that the tanks of the Standard Oil company are near at hand affording a market and a means of transportation for the oil.

The officers of the Pleasant



View of the "White House" on land of Pleasant Valley Farming Company, which owns a large area of productive oil land in the Coalinga field.

is in good standing in the business world. The demand for this oil is steady and growing, and the company has no trouble in disposing of its output. Most of the issued stock, consisting of 105,850 shares, is owned by Hanford and Lemoore parties. Every foot of the company's land is proven oil land, and the company can drill a large number of wells sufficient to give an enormous production. It proposes to continue drilling as fast as the demand for oil warrants. Its nearness to market makes it certain that the oil from this company will always meet with a ready sale.

#### Pleasant Valley Farming Company.

The Pleasant Valley Farming company owns 10,000 acres of valuable land nearly all of which lies in or adjacent to the Coalinga oil field.

Reference to the map of the field shows that this land lies in the following townships and ranges: 20-14, 20-15, 20-16. The land is both valley and foothill land, much of it is susceptible to cultivation. As a stock farm it is one of the most noted in central California, and cattle and particularly horses raised on this farm are noted throughout the State.

are almost if not equally as productive as the wells of the Esperanza. These companies are drilling their wells close up to the line of their holdings, and will continue to drill other wells, as the oil is in demand by the Standard oil company.

The natural consequence of drilling these productive wells close up to the line of the property leased by them is that the oil from the wells comes from a reservoir which includes the land outside the line of the properties of the companies that are drilling the wells. As this land is owned by the Pleasant Valley Farming com-

pany Farming company are: President, J. W. Morshead; vice-president, C. A. Warren; secretary, W. R. Sloan; directors, T. J. Crowley and S. W. Morshead.

The New Brunswick Petroleum company, Canada, has brought in some good wells, and five rigs are constantly at work. The pumping machinery is being connected as fast as wells are drilled. The directors have decided to erect a refining plant.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.





Well of the Blue Diamond Oil Company. Wells of the Caledonian in the rear.

#### Blue Diamond Oil Co.

One of the finest tracts in the Coalinga field is that owned by the Blue Diamond Oil company. It is especially well situated, being on the same formation as the Esperanza and the Penn-Coalinga. On the west are the Whittier well and the old coal mine with its oil seepages; on the north, the Baker, St. Paul, Esperanza and Penn-Coalinga; on the east, the Caledonian; all of which prove beyond a peradventure the vast oil body lying beneath its surface.

This tract is known to contain two oil strata: one at a depth of about 600 feet; the other at a depth of about 900 feet. The former, wherever penetrated, produces from 75 to 100 barrels a day; the latter, as high as 800 barrels a day. The sands are very thick, while the oil is light and of high grade.

The company has a tract of 420 acres (an unusually large holding), its own water system, and one of the finest rigs in the field. Its well is upon section 26, 20-14, and is one of the nearest to the broad gauge railroad that runs into Coalinga. The intention is to push the work of exploitation as rapidly as possible.

The Blue Diamond has a capital stock of 200,000 shares. The principal place of business, where its stock transfers are made, is in Grass Valley, Nevada county, Cal., the banner gold mining district of the state.

Its board of directors are conservative men of the highest standing in the community—men of unimpeachable honor and integrity. They have conducted the affairs of the company with the utmost prudence and foresight, their purpose being to make the property yield bountiful returns to the stock-

holders. There is a rich harvest in store for all who are fortunate enough to be stockholders in this company, as it has no leases, no royalties to pay, and owns its lands absolutely.

By reason of the fact that the railroad company has determined

not to lease any of its lands lying near the Blue Diamond, and by reason of the great strikes recently made and the wonderful activity in this part of the field, the holdings of the Blue Diamond have increased in value fully 100 per cent within the last few

months, and its stock has become a safe investment.

In addition to the broad gauge railroad already in the Coalinga field, another is projected. The latter, if completed, will pass near the lands of the Blue Diamond. The two roads, with the extensive pipe-line systems, give the company extraordinary facilities for transporting its oil.

Too much cannot be said in proclaiming the merits of this company. With its large tract of proven territory, its facilities for marketing its product, its high grade of oil, the future of the Blue Diamond is bright, its success assured, and its stockholders certain of great returns.

#### New San Francisco Crude.

The company called the New San Francisco Crude owns forty acres in section 6, 20-15, where are also located other companies that are among the best in the field. The New San Francisco Crude has one good well and is drilling another. It is surrounded by the wells of the York Coalinga, Mercantile Crude, Confidence, Maine State, Esperanza, Penn-Coalinga and Section 7 companies. The wells of the New San Francisco Crude are only one-half mile from the Standard's great receiving tanks. Well No. 1 produces a fine grade of 18 gravity



New San Francisco Crude, York-Coalinga and Mercantile Crude Oil Companies.





Wells of New San Francisco Crude, McClurg and El Capitan Oil Companies.

oil, which is easily handled and piped. The company will put down more wells immediately now that a market and transportation is assured. The officers and di-

its absolute faith in the ultimate success of its own enterprise and in the future of the Coalinga field.

The company was incorporated with an authorized capital of

6 Crosby square; Joseph Beausire, of Joseph Beausire & Co., 18 Water street, Liverpool; John Halliday, of the Arracan Co., Limited, 57½ Old Broad street; Charles

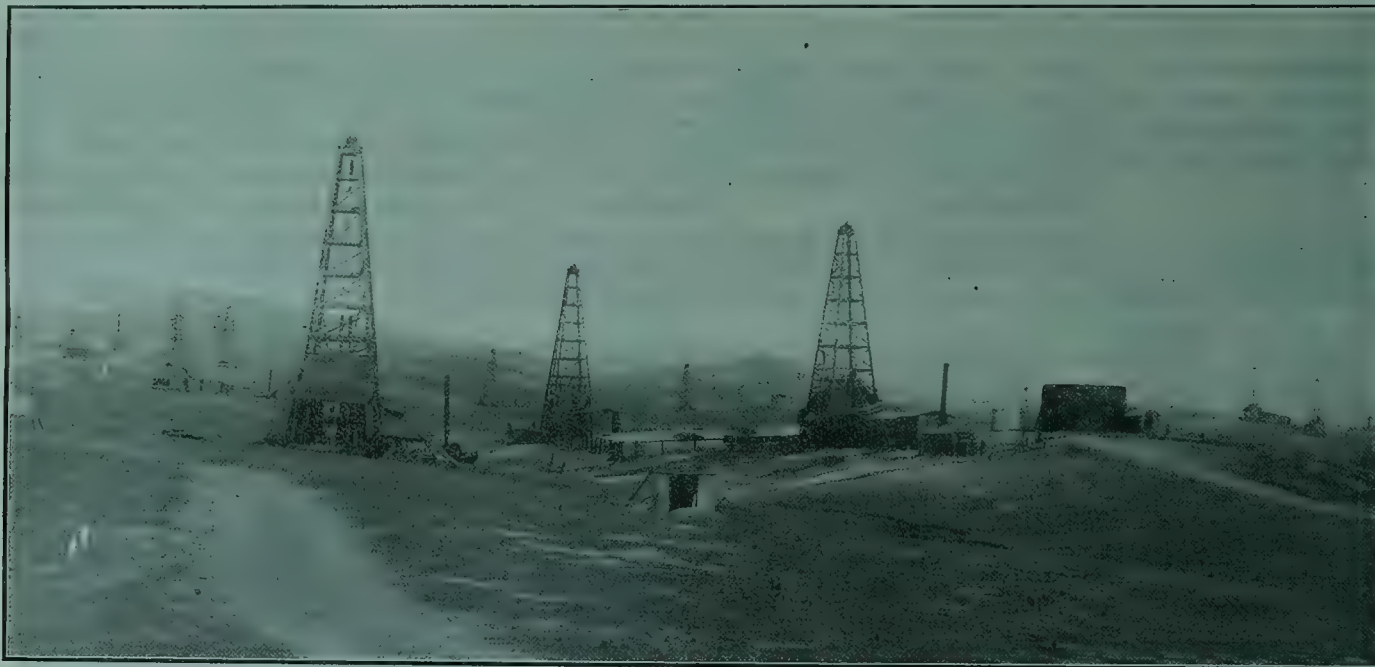
Mr. Arthur W. Rowe, and the registered office is at Dashwood House, New Broad street, E. C.

The company was formed to acquire and develop seven sections of oil land containing 4,480 acres (seven square miles) or thereabouts, situated in the Coalinga oil field, Fresno county, California.

The property was obtained by the Balfour-Guthrie Investment company from the California Oil and Gas company, for the sum of \$600,000 in United States gold coin, and fully paid shares of this company of the par value of £65,000.

The company was formed in the early part of May, 1901, and since that time it has operated very actively in the Coalinga district.

The California Oil and Gas company, which formerly owned this land, was composed of Californians, prominent among whom were Gen. W. H. H. Hart and Wm. Graham. The former acquired the property over ten years



Flowing Wells of the Esperanza Oil Company.

rectors are: President, J. K. Norris; vice-president, H. H. Welsh; secretary and treasurer, A. S. Cleary; Frank Cleary and H. T. Cripps.

#### California Oil Fields, Limited.

Of the different companies operating in the Coalinga field, none deserves more credit than the above-named. It owns an immense acreage of 4,480 acres, for which it paid at the outset \$600,000. It has expended since it obtained this territory a sum not far short of \$200,000 in developing this property, in building roads, establishing a permanent and substantial camp, drilling wells, putting in an oil pumping system, tankage and pipe-lines. Probably no company in the state has, from the very start, conducted its operations on such a thorough, permanent basis, and it has ever in its development work shown

£300,000, in shares of £1 each, of which 65,000 were allotted to the vendors and 185,000 were offered for subscription.

The first directors of the company were: Messrs. Robert Balfour, of Balfour, Williamson & Co.

Henry Moore, director of the Baku Russian and the Russian and Liquid Fuel companies, and Archibald Williamson, of Balfour, Williamson & Co., 3 Fenwick street, Liverpool.

The secretary of the company is

ago, when oil was first struck in the field. The latter was an experienced eastern oil man, and is now the manager of the California Oil Fields, Limited.

The company has drilled almost uninterruptedly since it came into



Camp of the California Oil Fields, Limited.





Looking down on the southwestern portion of the Coalinga field.

possession of the property. Buildings were erected in May, 1901, and the first well was started in July. There are now fifteen completed wells, three being on section 21, the rest on section 27. Half of these wells produce a light oil of 26 gravity valuable for refining purposes; the other wells produce a heavier oil of about 20 gravity. The light oil comes from an upper sand found at about 1,000 feet. Some of the wells yielding the light oil are exceedingly good producers. The Standard Oil company purchases all the light oil it can obtain, paying therefor a very handsome price. The Standard's tanks are located on the land of the company, not far from its wells.

The California representatives of the company are Balfour, Guthrie & Co., to whom great credit is due for the care exercised in the management of the company's affairs and the success that has attended its operations

#### Coalinga Iron Works.

The establishing of the Coalinga Iron Works, two years ago, supplied an important factor for the Coalinga field.

This shop was first built on a small scale, to do the repairing for the few companies that were then operating in the field. Last fall the shop was burned, but was soon built up by the present proprietors, Messrs. Barker & Barber, who are experienced men in their line of business. Department after department has been added to meet the increasing demand for a greater variety of repairing work, until now it is completely equipped in every detail, and could meet the requirements of a field double the size of Coalinga.

The shop is fitted up with lathes, drills, forges and every conceivable tool necessary to the complete equipment of a machine and repair shop. The company employs experienced men, who are constantly kept busy. The proprietors of the shop are experts in all kinds of tools for oil well drilling. Lately has been added an 800-pound steam hammer. The company also supplies the town with water, which is being pumped from two wells back of the shop. Recently a franchise has been granted them to establish an electric lighting plant to furnish the town and residents with illumination.

Their prices are reasonable, and work is executed with promptness.

Mr. D. N. Alexander, a man with large experience and an expert machinist, has recently been appointed manager of the shop, and under his guidance and direction the business is meeting with added popularity and success.

#### The Southwest Field.

The accompanying half-tone is a reproduction of a photograph taken from a high bluff on section 20 which overlooks the entire southwest portion of the field.

The view is reproduced in order to show to those unacquainted with the territory how the Coalinga oil field is growing, and how rapidly it is extending, especially toward the south and west.

The derricks can be seen in the picture dotting the entire landscape.

In the foreground are the derricks on sections 32, 31, 6 and 1, while in the extreme distance can be seen the rigs of the St. Paul-Fresno on 23, and the Caledonian and Blue Diamond on 26. The Wabash and Union are on 24. The rigs in the foreground are those of the Call, Plymouth Consolidated and Ajax, on the west line of 32; the Commercial, Maine State, Confidence, Producers' Guaranteed, El Zuma, El Capitan, McClurg, McNear, New San Francisco Crude, York Coalinga, Mercantile Crude, Fresno-San Francisco, Penn-Coalinga, Esperanza and Section 7, on sections 6 and 7.

A little over a year ago there

was hardly any development work in the southern portion of this field. Interest seemed to be centered on the northeastern portion, especially on section 28, and on sections 21, 22 and 27, where were the wells of the California Oil Fields, Limited, and the wells of the Caribou.

Those who had examined the southern portion of the field were confident that if wells could be put down to a sufficient depth that oil would be struck. They were willing to back up their faith with coin, succeeded in getting others to join them, in proving the territory, and the result is that now the southern portion of the field has a large number of producing wells, the Standard Oil company has erected an immense storage tank, pipe-lines have been run, pumping stations have been established, and the field is extending toward the south as rapidly as the drills can penetrate the oil strata. Recently the Union Oil company has put sufficient faith in this territory to buy a large acreage and has now two rigs fitted up, one of which has already commenced work.

The most southernly well is that

of the Caledonian, which has oil in one well and is drilling another.

This is by no means the limit of the district in this direction. The oil belt extends farther south where land can yet be had at a very low figure. This land extends undoubtedly to a point west and south of Coalinga, and many claim it extends south to the Kreyenhagen and Devil's Den district. The only way to prove the fact is to drill wells. Already several companies are organizing for this purpose, and before a year passes, unless predictions are false, there will be a large area of land added to the proven district of the Coalinga field. This territory will have the advantage of being near Coalinga, which will greatly add to the facility of getting machinery and supplies out to the wells. Much of this land is directly on the line of the railroad from Coalinga toward Alcalde, which is another great advantage in drilling and marketing the product of the wells.

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**COALINGA IRON WORKS**

**Coalinga, Cal.**

**D. N. ALEXANDER - Manager**



Well of the Plymouth Consolidated Oil Company.





Wells of the Confidence Oil Company.

### The Confidence.

The Confidence Oil company enjoys the distinction of being the pioneer company and the first to discover oil in that portion of the Coalinga field in which it is located. As a result of and following this discovery numerous companies secured land and leases adjoining and in the neighborhood of the Confidence, until to-day the western portion of the Coalinga field is doing its part to maintain the reputation of the district.

The Confidence Oil company has a twenty-year lease covering 160 acres, and includes an area one mile long by a quarter mile wide. It extends through the center of section 31, 19 15, and was the first oil land lease issued by the Southern Pacific company. The lease is a very favorable one, carrying only an eighth royalty. Beside this lease the company holds title to eighty acres in 25, 19-15.

The company has two good wells, about 900 feet deep, in the northern portion of its lease. Having more land than it could itself develop to advantage the company has made a sub-lease of a portion of its territory to the El Zuma Pura company, twenty acres of 19-15, and this company has now three excellent wells. The Confidence has also sub-leased twenty acres adjoining the El Zuma to Captain J. A. McClurg and Geo. H. Claypool of the Zenith Oil company on which the third excellent well has just been completed. This makes eight good wells now on the land of the Con-

fidence Oil company. These wells produce from 100 to 200 barrels each per day. The companies operating on this land have excellent pipe-line facilities as both the Standard and the West Side pipe-lines are on its land.

The Confidence was incorporated May 13, 1899, with a fully paid up capital stock of \$48,000, divided into 1,920 shares of a par value of \$25 per share. The office is at 1,152 Fresno street, Fresno, Cal., and the officers and directors are: President J. P. Vincent; vice-president and attorney, D. S. Ewing; treasurer, E. A. Walrond, the cashier of the First National Bank; secretary, J. J. Vincent; directors, Hon. E. W. Risley of San Francisco, and Frank Cleary of Coalinga.

### The Caledonian Oil Co.

The property of the Caledonian Oil company is located in almost all of the noted oil districts in California, comprising valuable oil land in the Kern River, Midway, McKittrick, Newhall, Victor, and Coalinga Oil Fields. In all, the Caledonian has a total acreage of 1,115 acres, divided as follows: Twenty acres in Coalinga in section 26, township 20, range 14; thirty-five in McKittrick, in 24, 28-20; 640 in Midway, in 36, 31-21; eighty in Newhall, in 36, 3-17; 320 in the new Victor field, in 36, 6-6; and twenty acres in the Kern River field, in 25, 27-27.

While all this property is considered good oil land, which if developed will prove productive of an abundance of good, marketable oil, drilling operations up to the present time have been confined to the tract of land in the Coalinga field.

The property owned by the company in this field is located near the wells of the St. Paul-Fresno, the Blue Diamond, R. C. Baker, the Wabash, the Union, and a new company is formed to begin operation on an adjoining quarter section. All these wells are on the same formation with the big producers and flowing wells of the Esperanza, Penn-Coalinga, Mercantile Crude, and others, that rival any in the State. These wells have lately been allowed to flow their full capacity since they were completed, and after consecutive runs for over one month are found to be doing better than 400 barrels per day.

The company's land is not only adjacent to some of the most productive wells in the Coalinga field, but the company has already succeeded in bringing in one producing well of nearly 100-barrel capacity, and have well No. 2 down in the neighborhood of 600 feet penetrating the first oil sand. Well No. 1, although a good producer is down only a little over 700 feet stopping in the first oil sand. With well No. 2, the company will penetrate the second oil sand which will yield a lighter oil and the production, taking into account the outcroppings and the adjoining large wells, should rival any in the field. Men experienced in this field claim that the second sand should prove equally productive as it does in the case of the Esperanza and Penn-Coalinga wells.

The writer visited the Caledonian property in the Coalinga field two months ago, and at that time the oil from No. 1 was flowing over the eight-inch casing, and was collected in an improvised slump hole; when the well was again visited in June the oil was being

collected in a reservoir, and a pump and line installed for utilizing the oil in the drilling of No. 2 well.

The company has its own water supply, an item of considerable importance where water is expensive, and has erected comfortable houses for the superintendent and the men at work on the wells and about the property. The drilling of wells will continue until its production shall warrant the installing of an oil delivery line and pumping plant.

The oil obtained by the Caledonian is of a superior quality that has ready sale. There is absolutely no doubt but that when the company has sufficient output that the Standard, the Union or the Southern Pacific Railroad company, now buying oil in the Coalinga field will offer a good price for the product and will lay a line direct to the property as has been done with nearly all of the producing companies. Since there are already ten wells either completed or in the process of drilling in the immediate vicinity, and the Standard pipe-line within the four mile mark it is almost an assured reality that the line will be extended to the company's property before the end of the year.

The reproduced picture of the Caledonian Oil company was taken June 11th, and shows rig No. 1 pumping, No. 2 at drilling. The drilling of these wells has been watched with keen interest by those who own land in the portion of the field, as the finding of oil has practically proven up an immense new territory extending almost to the town and has increased the value of land from little or nothing to about \$500 an acre at the present time. This company has proven that the oil belt lies in an unbroken line straight through the field from the northeast to the southwest, and extends on, no one knows how far to the southwest.

Great care has been exercised in the development of the company. Drilling has been carried on uninterruptedly and No. 1 well was finished as one of the quickest in the field. For the successful development work accomplished thus far, great credit is due to the efficient field manager, Mr. R. W. Dallas, who has given the operations of the company his undivided attention, and who himself has the most abiding faith in the future success of the company and its ultimate dividend paying qualities.

The Caledonian Oil company is an Eastern concern. Their head office is in New York, at 140 Nassau street. The officers are as follows: Alexander Dallas, M. D. president; A. A. McFarlan, vice-



Wells Nos. 1 and 2 of the Caledonian Oil Co., with the wells of the St. Paul-Fresno Oil Co. in the background.



president; Edwin Cadmus, treasurer; William A. Rudd, secretary; Dr. Dallas and Messrs. Cadmus and McFarlan are well known residents of Bayonne, N. J. Mr. Rudd is a New York business man, and Mr. E. H. Pennett, another director, is the vice-president of the Singer Manufacturing company. The names and the reputation of the gentleman composing the management is sufficient guarantee that the affairs of the company are managed carefully, intelligently, and in a safe and economic manner, while every attempt is being made to place the company on a dividend paying basis as rapidly as possible. Until the company is on a dividend paying basis its officers serve without salary.

After the Coalinga field has been exploited the other fields in turn will receive attention. The Midway property especially has become very valuable as drilling is carried on on all sides and recently a well has been struck at 260 feet near its property. The Kern River and

stands unique offering an investment safer than a savings bank and at the same time giving investors an opportunity to speculate obviating all risks.

It is needless to say that the company has large capital at its command, and is in a position to thoroughly develop the land in the different fields in which its property is located. From its past record it is evident that the company has come into the oil industry to develop into one of the largest oil companies in the State.

#### St. Paul-Fresno Company.

In June 1901, U. M. Thomas visited the Coalinga oil fields for the first time and being highly impressed with the geological formation as well as the promising outlook of the field from the producer's view point, after a careful study of the district selected section 23, 20-14, as the

secretary; Jas. T. Ingersoll, of St. Paul, Minn., treasurer. Gerge L. Warlow, of Fresno, and Chauncey L. Baxter, of Fergus Falls, Minn., are also on the board of directors.

The company began drilling in March, 1902, and soon after developed what is, in many respects, the most remarkable deposit of oil sand ever discovered in the state. Instead of the light gas oil found in other parts of the district the oil developed in this well has none of the volatile substances which hitherto characterized the Coalinga oils, but is distinctively an asphaltic and lubricating oil. The asphalt produced from this oil is pronounced by all the chemists who have analyzed it as of a remarkably high purity. One

this property on the west with highly satisfactory results.

#### CHEMIST'S REPORT.

Office of PACIFIC REFINING COMPANY, Manufacturers and Shippers of High Grades of Asphaltum.

BAKERSFIELD, Cal., Feb. 17, 1903.

MR. U. M. THOMAS, Secretary St. Paul-Fresno Oil company, Fresno, Cal.—Dear Sir: The sample of crude oil submitted to me recently has been analyzed with the following results:

Specific gravity, .989, equals 11 1/4° B. Viscosity, 335 (water 133).

A fractional distillation of the sample gave the following results:

Distillate (specific gravity .908, equals 24.3° B.)..... 59% Asphaltum ("D" grade)..... 36% Loss (including 2% water)..... 5%

A re-run of the above distillate produced the following:

Frac. 1, 230-460° F. 5.4%, grav. 54 1/2° B. Frac. 2, 460-500° F. 3.2%, grav. 45 1/2° B. Frac. 3, 500-560° F. 8 %, grav. 34.2° B. Frac. 4, 560-620° F. 12 %, grav. 28° B. Frac. 5, over 620° F. 37.5%, grav. 23° B. Frac. 6, 30 %, grav. 18.3° B. Loss in re-dist., 3.9%

100%

The numbers designated on the sample bottles accompanying this report refer as follows to the above fractions:

Sample No. 1, Fraction 1.

Sample No. 2, Fraction 4.

Sample No. 3, Fraction 6.

The principal characteristics of this oil, as exhibited in its distillation, are the high viscosity of its distillates, the almost total absence of the benzene and lighter series as produced by ordinary methods of distillation, and its large content of heavy lubricating stocks.

In the distillation of the crude oil a large amount of non-condensable gas is given off. The distillates come over evenly and continuously however.

The chief value of your oil lies in its asphalt producing qualities and its content of lubricants. With very simple treatment the above lubricating stocks obtained can be made into finished oils of high fire test and viscosity and general lubricating value.

The range of uses for the distillates varying from 35° to 25° Baume, is wide and the methods of refining the crude distillate can be altered or modified so as to increase the percentage of the particular gravity desired.

The residue or green oil has the qualities of an excellent cylinder stock, and from its large proportion could be worked up profitably.

The asphalt obtained is ductile and cementitious and of high purity. It seems to be well adapted for paving, roofing and all other purposes for which oil asphalt is used.

ROBT. S. KNIGHT.

UNIVERSITY OF MINNESOTA. Department of Chemistry.

MINNEAPOLIS, AUGUST 15, 1902.

St. Paul-Fresno Oil Co., St. Paul, Minn.

I have just completed the analysis of the petroleum sample presented for examination a few days ago, and beg leave to make the following report:

The sample in hand was a jet black, thick, viscid fluid, resembling common tar. It had little of the common petroleum odor and none of the fluorescence which characterizes the Pennsylvania and Ohio oils.

Specific gravity of the oil at 17° C., 0.951.

FRACTIONAL DISTILLATION.

Burning Oil No. 1. This oil distilled over between 120° and 300° C. (248° to 572° F.)

Per cent obtained, 9.3.

Specific gravity, 0.883.

Flashing point (Pensky Martens tester) 60° C. (140° F.)

The oil was of a light yellow color resembling ordinary kerosene, although



Wells of the St. Paul-Fresno Oil Company.

McKittrick fields are too well known to need explanation and the company owns valuable proven land in both of these fields. On the Coalinga property alone there is room for at least thirty wells, and assuming that they will only produce 100 barrels per day of which we are sure in the first sand, this will give the company an output of at least 3,000 barrels per day, or a monthly production of 90,000 barrels. The price of oil in the Coalinga field is now lower than it will be—20 to 27 cents. It is freely predicted that within a year the price will go up to 40 cents. Even at 30 cents a production of 90,000 barrels a month will give a total income of \$27,000 a month which, after all expenses have been paid leaves a big margin for dividends for the stockholders.

The company is capitalized for \$750,000, on a par basis of \$1 per share. Considering the value of the company's holdings, this is a very small capitalization, and is an excellent feature of the Caledonian as a stock company proposition. The stock is guaranteed by gold interest bearing bonds so that investors cannot lose their principal in any event. They will receive three per cent annually, so that anyone investing \$100 in this company receives a certificate for 100 shares of stock, a gold bond for \$100 bearing three per cent interest, and when the bond matures he received his \$100 back and his stock thus costs him nothing. In this respect the company

most promising location outside of the actually proven territory, in which to drill for oil. At that time the El Capitan, four and one-half miles to the northeast, was the nearest producing well. Securing a lease of 160 acres from the Southern Pacific railroad company on an eighth royalty, Mr. Thomas returned to St. Paul, Minn., where he formerly resided, and organized the St. Paul-Fresno Oil company. The company is incorporated under the laws of the Territory of Arizona with a capital stock of 250,000 shares of the par value of \$1 each. Among the shareholders of this company are numbered a great many well known and influential business men of Minnesota and Wisconsin. Several state officials, one United States district attorney and his deputy, several officials of the Northern Pacific railroad and men of like prominence are holders of its stock. The officers of the company are: H. H. Welsh, of Fresno, president; L. T. Chamberlain, of St. Paul, Minn., vice-president; U. M. Thomas, of San Francisco,

noted chemist said he had never seen anything like it. All agree that the oil has unusual value for refining purposes. Besides the analyses as shown by the reports published herewith tests of the oil have been made by other chemists and practical oil refiners. Prof. N. Lehnen, Ph. D., of St. Paul, Minn., tested the oil in its crude state as a flux for reducing asphalt for paving purposes with highly satisfactory results. The Tesla Coal company tested the oil in its briquetting factory at Stockton with the result that an offer came to purchase the entire product of the company. As a "binder" for fuel briquettes its equal has never been found. Prof. Frankforter, of the state university of Minnesota, also tested this oil as a briquette binder and recommended it to a briquetting company as the best binder he had ever seen. Paul W. Prutzman, of San Francisco only last week made a test of the oil for briquetting, using the Coalinga lignite coal, taken from the old coal mine on the section adjoining



there was a little more color and the specific gravity was somewhat higher.

Burning Oil No. 2. This oil distilled over above 300° C. (572° F.). It is apparently formed by decomposition of some of the more complex hydrocarbons as indicated by the specific gravity and flashing point. The oil is of a golden yellow.

Per cent of oil found, 14.3.

Specific gravity at 17° C. 0.864.

Flashing point, 30° C. (86° F.).

This like the first distillate has a little greater specific gravity than ordinary kerosene oil. The flash point was low on account of the formation of light oils through decomposition of the more complex ones. This is a beautiful oil.

Lubricating Oil. This oil was obtained after the golden oil had been distilled off. The first obtained was of light, brownish red color, while the last obtained had a dark red color. It was the first to show distinct fluorescence. While this oil was separated into two parts the properties have been combined.

Per cent obtained, 44.5

Specific gravity, 0.895.

The flashing point was low for the same reason that No. 2 was low, namely, from apparent decomposition of the higher hydrocarbons.

sis, I thought from the appearance of the residue that a determination would be of interest to you. It seems to me that these products will give you some definite basis upon which to work. This asphalt residue is of considerable interest. **I have never had anything quite like it.** So also the so-called burning oils. I presume that these two oils would ordinarily be classed as lubricating oils. They correspond almost exactly to the Russian burning oil.

I shall be glad to answer questions and to present you with samples.

Respectfully submitted,

G. B. FRANKFORTER,  
Director of the School of Chemistry,  
University of Minnesota.

### The Valley Slope.

The history of Coalinga would be incomplete without mention of that man of sterling integrity and unbounded generosity, Mr. H. H. Welsh, of Fresno.

Mr. Welsh is one of the most prominent attorneys of the San Joaquin valley, a native son of this Golden West, and a man who

Welsh has followed the State in its progress and keeping in touch with its various resources.

At one time in his career Mr. Welsh was rated as a first-class miner and assayer, and it is probable that few men have a better general knowledge of the mineral resources of the State.

The oil developments led Mr. Welsh, like many others, into the Coalinga field, and his experience is among the successes.

One of his discoveries of valuable deposits of oil is now in the possession of the Valley Slope Oil company.

This company owes its origin to the good judgment of Mr. Welsh, and he is now receiving the congratulations of his friends on his excellent selection of lands.

In this case, as in all others, his investigations and prospecting were most thorough, and left little room for a mistake in his selections.



H. H. Welsh.

The policy of the Valley Slope is to sell forty, eighty or even 100 acres at low prices to induce developments, retaining for itself land adjoining that sold and in this way the developing company gets the benefit of low prices for itself and, by its development, proves some portion of the lands remaining unsold in the Valley Slope.

This company still owns 200 acres in east half of 26, a part of which lies between wells and is proven ground, and also owns the north half of section 36; and in township 20, range 15, the company has 280 acres of what seems to be the best portion of section 30.

The progress of the Valley Slope has been such as comes from conservative and business-like management—certain and successful.

After the placing of a few more tracts for development purposes, the Valley Slope itself intends to engage in active work on part of its holdings, and from lines on which the company is operated, every success should attend the company and those who operate on lands secured from it.



Wells of the St. Paul-Fresno Oil Company.

Residue. The residue which remained after removing the above mentioned oils was examined. **It proved to have unusual asphaltic properties.** Its specific gravity was 1.15, and was slightly brittle at the ordinary temperature. It became a homogenous liquid at about 90° C. It was examined for the so-called petroleum and asphaltene, with the following results:

Petrolene, 54 per cent.

Asphaltene, 46 per cent.

There was a small amount of insoluble carbonaceous matter in the latter which would represent perhaps 5 per cent of the asphaltene.

I have preserved samples of these constituents which I feel sure will be of interest to you.

Both of the oils classed as "burning oils" lie on the line between the light or burning oils and the heavy or lubricating oils. I have classed them as burning oils on account of the viscosity which is lower than the so-called spindle and machine oils.

This delay was due to the determination of petroleum and asphaltene which required all yesterday afternoon. While I told Mr. Thomas that I could not include these determinations in this analy-

makes friends as other men make acquaintances.

He was born in the historic town of Marysville, and as a child played in the golden sands of the Feather river. A little later, we find him as a school teacher, training the young minds of the children of the hardy pioneers, and afterwards, for a time, handling the reins on the lumbering stages of the early days, as easily as the dainty hands of the lady handles the ribbons of her hair.

While yet a young man, he took up the study of the law, and with his untiring energy and zeal, mastered its elements; and, as a practitioner in the various courts of the State, won distinction by his fairness to his opponents and through knowledge of his case. He has been engaged in many cases that are linked with the history of the State.

Thoroughly up to date, Mr.

Mr. Welsh took up this land with two of his personal friends, Mr. A. V. Lisenby, the general manager of the Peoples Savings Bank of Fresno, and Mr. H. U. Maxfield of 11 Montgomery street, San Francisco, and the Valley Slope Oil company was formed.

This company has sold no stock, and its entire properties are owned by the above named gentlemen, Mr. H. U. Maxfield being the city agent of the company.

They purchased more than 1,000 acres of patented land, the purchase including the 160 acres in section 24, township 20 south, range 14, which was recently sold to the Union Oil company; and the east half of section 26, in same township and range, on which is now located the properties of the Blue Diamond Oil company and the well recently brought in of the Caledonian Oil company.



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Trains leave Union Ferry Depot, San Francisco, as follows:

**7:30** A. M.—**BAKERSFIELD LOCAL**; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.

**9:30** A. M.—**"THE CALIFORNIA LIMITED"**; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**9:30** A. M.—**"VALLEY LIMITED"**; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**4:00** P. M.—**STOCKTON LOCAL**; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

**8:00** P. M.—**"OVERLAND EXPRESS"**; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\*Daily      †Mondays and Thursdays  
                 ‡Tuesdays and Fridays.

Personally Conducted Parties for Kansas City, Chicago and East leave on Overland Express Monday, Thursday and Saturday at 8:00 p. m.

Ticket Offices, 641 Market Street and in Ferry Depot, San Francisco; and 1112 Broadway, Oakland.





The R. H. Herron Company, Oil Well Supplies, Coalinga.

### R. H. Herron Company.

This is the pioneer oil well supply company of California, having done business for the past eight years in the various oil fields in the state, and it is considered today the largest supply house of its kind in the state. Its branch stores are located in Bakersfield, McKittrick, Sunset, Coalinga and San Francisco, and its main store and offices are located in Los Angeles.

More than five years ago this company was attracted to the Coalinga district, and since that time has furnished nearly all the tools, machinery, casing and pipe that have been used by the hundred and more companies that operated in the Coalinga field since the first striking of oil. Five years ago R. H. Herron company established a store in Hanford, from which point all the supplies for the Coalinga field were shipped. The constantly increasing activities of the field warranted them in establishing a branch store in Coalinga nearly three years ago. Here they have been doing nearly all the business in the field, the extent of which cannot be realized. At the present time twenty-two rigs are drilling, and since January 1st of this year more than forty rigs have been used in this field.

One need only look across the track from the depot to convince himself that the local branch house is well stocked. It has three large buildings—storehouse, office and store, with large yards and platforms around them completely stored with all kinds of machinery, boilers, tools, all sizes of casing and drive pipe, tubing, connections, and everything to the minutest that can possibly be needed in oil well drilling. The company has also added to its stock a complete line of fishing tools, such as casing and drive pipe, spears, slip sockets, combination sockets, swedges, underreamers of the latest approved patterns, jacks, alligator grabs, and scores of others. Their stock has been increased from time to time to keep abreast with and ahead of

the increasing operations in this field, until now the company is compelled to increase its storage room. By September 1st it will occupy a large store in the newly constructed block of A. P. May, and convert its present office and store into storage rooms.

No better equipped supply store than that of the R. H. Herron company in Coalinga can be found anywhere. As it has grown up with the field it is in condition to know just what tools are wanted, and its stores of experience, accumulated in supplying the demand of the field for five years, puts its men in position to render valuable assistance to new companies. Mr. S. D. Porter, the local manager of the company, is an experienced driller himself, and for the past three years has served in his present capacity to the entire satisfaction of the company and the operators. He is a man who always stands ready to give service to his patrons. He is assisted by Mr. H. E. Boyer, who has only

recently come here from Texas, and Mr. George Stathim, who has been with the company for one year.

The reproduced photograph can show nothing of the immense stock stored away in the storehouses and the yard back of the buildings. A trip to Coalinga is incomplete without a visit to the store of this company and an acquaintance with the men in charge. They are all practical men, with experience in all branches of the oil business as it is conducted in the various oil fields of the United States, and especially as the work is carried on in this field.

### Rhode Island & California.

There are few oil companies in the Coalinga field which have made such rapid progress as the above company.

It was organized a little over a year ago with a management composed of some of the best business men of Providence, R. I., and if integrity and previous business success counts for anything, (which is certainly not a debat-

able question) the company cannot but succeed.

The company is supplied with a full set of the best machinery obtainable; is now down over 1,800 feet with its first well, and does not owe one dollar, which fact alone, places it in an enviable position.

In boring its first well, the drills passed through several strata of rich oil sand, and although this first well may not be fully equal to some in the adjacent properties, yet it will undoubtedly be a good one in every sense of the word. They capped the well at 1,860 feet, and are now waiting for the piping facilities to demonstrate its exact production. It is a fortunate condition with this company that it owns such a large amount of realty (about 1,200 acres) that it is not confined to its own oil production, but has the ability through its large holdings, to lease to other companies. There are already several companies (among which are the White Rock and the Connecticut and California company) who lease of them. One of these companies is now down about 1,200 feet, while the other will doubtless soon be reaching down toward the oil values.

Anyone who is conversant with the conditions in the Coalinga field cannot but realize the immense enhancement in land values within the last few months, but fortunately for the Rhode Island and California Oil company, it secured just previous to the jump, an option on section 24 (T. 19-15) and the deeds passed early last spring. Every report from Coalinga coincides in one fact, and that is that this section (24) bids fair to be ONE OF THE BEST, while the report of George H. Eldridge (the government expert appointed to examine and report on the Coalinga field) demonstrates that sections 24, township 19, and section 6, township 20, (the sections belonging to the Rhode Island and California Oil company) will produce the very highest grade of oil, and both of these sections are strictly within the bounds of the proven oil belt.

The Rhode Island and California Oil company intend at an early date to continue the development work on section 6, while the White Rock will start work on section 24.

Subscribe for the PACIFIC OIL REPORTER.



Rig on the land of the Rhode Island and California. Superintendent Barjeau is the central figure of the group.



**LATEST OIL NEWS.****Development Work at the Wells During the Week.****COALINGA.**

Hanford Oil company is rigging up for No. 5.

A new water well is being drilled by the Valley Water works.

Fried & Bryner are erecting a derrick on their lease on section 25, 20-14.

Last week the rig and tools of the Plpmouth Consolidated Oil and Development company were attached.

A. E. Webb, the leading merchant in town, is branching into the oil business again. He has taken an option on section 16, 21-15.

"28" Oil company is rigging up No. 9, to begin drilling at once. No. 7 has only recently been completed and No. 8 is now drilling.

D. N. Alexander, who came from Ba-

tion 21, 19-15, has resulted in bringing in a gusher a week ago last Sunday. A fair estimate of its production from the time that it was flowing is in the neighborhood of 1,000 barrels per day, although some place the estimate nearly double that amount.

The balance of the pipe for the Pacific Coast Oil company has been received and a gang of men are now laying the portion to connect the tank on section 6 with the main storage tanks on section 21. After the completion of this line the branch line to section 28 will be finished. A 50 horse power pump has been placed on section 6 which will be set to work as soon as the line is laid connecting the tanks.

**KERN**

The Golden West in Sunset has resumed shipping oil.

It is believe that the railroad will soon be extended through the Sunset field.

Well No. 1 of the Charter Oil com-

**COLUSA.**

The directors of the Williams Oil company have levied assessment No 2 of 3½ cents per share. Delinquent July 18th.

**LOMPOC.**

The New company's well at Santa Rita is down 400 feet with no hitch in the work thus far.

The Union Oil company has parted the pipe at 400 feet in well No. 3 and will commence to bore anew.

**SANTA MARIA.**

The Pinal well No. 3 started gushing again this week and thousands of barrels of oil were lost.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

Dallas & Shaffath, the representatives of the PACIFIC OIL REPORTER in the Coalinga field. As much of the field is included as was possible in the space provided.

**Extra Copies.**

Although the expense attending the publication of this special edition has been very large, the price per copy remains the same—10 cents. An edition of 20,000 has been printed. The rate by the hundred is \$7. Cash must accompany the order. Advance orders have been very large. Order at once if you want any number.

**LIGHTNING WELL MACHY**  
IS THE STANDARD  
STEAM PUMPS, AIR LIFTS,  
GASOLINE ENGINES  
WRITE FOR CIRCULAR 19  
THE AMERICAN WELL WORKS  
AURORA, ILL. - CHICAGO - DALLAS, TEX.



Burning Well of the Home Oil Company, Coalinga District.

kersfield to accept a position at the Coalinga Iron works, was appointed manager of the establishment last week and is now serving in that capacity.

A franchise has been granted to C. E. Barker, one of the proprietors of the iron works, to construct and maintain an electric light plant, furnishing the town and residents with illumination.

E. Fitzpatrick of Hanford has been awarded the contract for drilling well No. 2 of the Section 7 Oil company. E. Corry received the contract for drilling No. 3 well for the Philadelphia-San Francisco Oil company.

R. C. Baker has been awarded the contract for putting down a well for the Pleasant Valley Stock Farming company, in the SW. ¼ of the SW. ¼ of section 6, 20-15, directly south of the Esperanza. It is understood that the company will put at least six wells down in succession.

The deepening of well No. 2 of the California Oil Fields, Limited, on sec-

pany in Sunset has been put on the beam.

C. A. Canfield has been visiting the Midway property of Chanslor & Canfield.

Max Grossmeyer will commence drilling well No. 3 in Kern River immediately.

John M. Wright, of the Peerless, has secured large holdings in the Cuyama district.

A well will soon be drilled on the forty acres of the Lucky Boy land recently sold to Eastern parties.

The Standard is building six reservoirs at Kern River, which will hold 3,000,000 barrels. Three are already completed.

G. T. Cameron, representing the Crocker-Woolworth bank, has purchased forty acres from the Monarch and will develop the property.

It is now the general opinion that the Midland-Pacific scheme has gone a glimmering. Those who worked for the company are unable to get their pay.

**Will Pay Dividend.**

The Debenture Surety company of San Francisco, Cal., on July 10th will pay the June dividend of 5 cents per share on its issued capital stock. This company was incorporated last October and its stock first sold at 20 cents a share. It has already paid 30 cents a share in dividends. This company incorporates, finances and operates legitimate propositions, also acts as trustee and fiscal agent for first-class companies. It is now handling the affairs of the Omaha Gold Mining company, which pays its first dividend in October.

**Coalinga Map.**

The map of the Coalinga district published in this edition is the most correct map that has yet appeared of the district. It is brought up to date. All the wells are shown. The holdings of the different companies, the pipe-lines for oil and water, storage tanks, etc. The map was compiled for this edition by

**For Sale.**

A quarter section at \$40 an acre, in the Coalinga district, in a direct line of the producing wells of the St. Paul-Fresno, the Baker, the Caledonian and the Blue Diamond, the latter well now approaching completion with every indication of success. In a short time this land will be worth \$500 an acre. It is near the railroad and wells are now being drilled near by. This is a snap. For particulars inquire of the

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Pacific Oil Reporter.**

**Wanted**

Responsible party to drill oil well by contract. Address

**BOX 10  
Pacific Oil Reporter**



# PACIFIC OIL REPORTER'S

## OIL LAND DEPARTMENT

**Is the only Agency on the Coast Handling  
Oil Lands Exclusively**

For a long time the PACIFIC OIL REPORTER has realized the need of an agency on the Coast to handle oil properties exclusively. Time and again this office has been importuned by parties desiring to secure firstclass oil lands to recommend or secure contracts of purchase of lands that were known to be absolutely safe for development. To all such we were obliged to reply that we were not in the land business. Often these buyers would not consent to deal with the outside agents to whom these inquirers were turned over. In order to serve our friends and patrons, both buyers and sellers, this department has been established. The wisdom of this move has already been amply demonstrated. We feel highly complimented at the evidences of confidence that the investing public has already shown in the REPORTER'S land department. Owners of high grade oil lands in all sections of California, as well as Utah and Wyoming, recognize our land department as a legitimate and trustworthy medium through which they can be brought into touch with the investing public. Both classes have instantly recognized the unsurpassed facilities which this department affords. We have no competition. We are the only agency of the kind on the Coast. We can therefore afford to discriminate. This we do. We will not, under any consideration, handle questionable propositions. The policy which the PACIFIC OIL REPORTER has strictly adhered to heretofore in its editorial and news columns will be even more strictly followed, if possible, in handling the business of this department. Properties which will not stand the closest investigation will not be handled at any price. Stock jobbing schemers and fakirs we have no time for. This they know already, consequently our patronage comes from the legitimate dealer.

### TO THE BUYER.

To those who desire to purchase oil lands, either as an investment or for development purposes, we have something of special interest. At present the Coalinga field is coming to the front as no other district in the

state, and offers greater inducements to the investor than any other district that we know anything about. We have listed with us the very cream of the field. We have for sale the only available property in the "gusher" territory. Section 6, 20-15, is without doubt the choicest oil land in the state, if not in the United States. We have the agency for the fee owners of this entire section. There are seven producing wells on the section, including the two great Esperanza gushers. The price at which this land can be bought is ridiculously low compared to its real value. We have over 2,000 acres of land in the proven territory of this field at prices way below the ruling prices in other proven districts in the state. We also have some very choice proven territory in the Kern River, Sunset and Midway fields, in Kern county, as well as in Lompoc district in Santa Barbara county.

We are the exclusive Pacific Coast agency of the Evanston, Wyoming, Oil Exchange, and have the very choicest lands in the great Uinta district listed with us. In addition to this great list we have more than 8,000 acres in the new Salt Lake fields, in Utah, offered to us, and we are now investigating this field, with a view to listing this great tract. This will give you an idea of what we have to offer, and every day is adding to the list.

### TO LAND OWNERS.

A glance at our listings is enough to convince any one that we have the confidence of oil men everywhere. Our facilities for handling oil lands are unequalled. We know a thing or two about oil lands ourselves, and when we are satisfied that a property is all right our endorsement carries weight. Consequently the discriminating investor seeks our endorsement.

We do no hawking about the streets. We boom no particular tracts. We have no pet schemes. We are unhampered. If your land can be sold on its merits we can handle it. Otherwise we don't want it. Send us a full description of your property, and we will tell you whether we think we can handle it or not.

. . . . . ADDRESS . . . . .

**LAND DEPARTMENT, PACIFIC OIL REPORTER**

**U. M. THOMAS, Manager**

**318 PINE STREET**

**SAN FRANCISCO, CAL.**



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, July 1st:

ALMA.

500 at 1 50 (S 10)..... \$ 750 00

FOUR.

1,500 at 70..... 1,050 00

FULTON.

125 at 2 80..... 350 00

HOME OIL.

1,200 at 2 95..... 3,540 00

725 at 3 00..... 2,175 00

600 at 3 05..... 1,830 00

200 at 3 10..... 620 00

INDEPENDENCE.

1,000 at 17 (B 90)..... 170 00

JUNCTION.

1,450 at 21..... 304 50

KERN.

500 at 5 50..... 2,750 00

LION.

2,500 at 06..... 150 00

1,000 at 07..... 70 00

MONARCH.

1,000 at 55..... 550 00

200 at 56..... 112 00

OCCIDENTAL OIL.

1,270 at 20..... 254 00

1,460 at 21..... 306 60

PITTSBURG OIL.

500 at 45..... 225 00

SOVEREIGN.

1,000 at 38..... 380 00

1,500 at 37..... 555 00

STERLING.

200 at 2 95 (S 30)..... 590 00

SUPERIOR.

1,000 at 06..... 60 00

THIRTY-THREE.

10 at 8 00..... 80 00

WEST SHORE.

100 at 2 80..... 280 00

100 at 2 80 (S 10)..... 280 00

100 at 2 90 (S 10)..... 290 00

19,740 Shares, Amount, \$17,722.10

CHUTES CO.

200 at 8 00..... 1,600 00

FISHER R. THEATRE CO.

300 at 2 50..... 750 00

500 Shares Amount \$2,350.00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.50	1.75
Apollo.....	.41	.....
Asso. Oil Co Stk. Tr.	.....	.....
Certificates.....	.23	.24
Aztec.....	.80	.....
Bay City.....	.....	.20
Bear Flag.....	.....	.15
California Standard.....	.13	.14
Caribou.....	.....	.95
Central Point Con.....	.....	.85
Chicago Crude.....	.21	.....
Clairemont.....	.....	.32
Esperanza.....	.70	.....
Fauna.....	.....	.03
Four.....	.70	.73
Fulton.....	2.80	.....
Giant.....	.20	.....
Hanford.....	1.10	110.00
Home.....	2.90	3 00
Homestake.....	2.50	.....
Imperial.....	.....	.....
Independence.....	.16	.17
Junction.....	.21	.22
Kern.....	.....	5.75
Kern River.....	12.00	.....
Lion.....	.05	.06
Monarch of Arizona.....	.54	.55
Maricopa.....	.10	.....
McKittrick.....	.13	.....
Monte Cristo.....	1.00	.....
Nevada.....	.30	.....
Occidental of West Va	.20	.21
Oil City Petroleum.....	.31	.32
Peerless.....	.....	15.00
Petroleum Center.....	.....	.05
Pittsburg.....	.40	.....
Piedmont.....	.06	.10
Reed Crude.....	.36	.38
S. F. & McKittrick.....	2.50	2.75
San Joaquin O. & D.....	5.50	.....
Senator.....	.....	.75
Shamrock.....	.15	.22
Sovereign.....	.37	.38
Sterling.....	2.90	.....
Superior.....	.04	.....

Thirty-three.....	7.75	8 00
Toltec.....	.....	.25
Twenty-eight.....	.....	4.00
Union.....	.....	64.00
United Petroleum.....	.....	118.00
West Shore.....	.....	.....
Western Petroleum.....	.....	.15
Wolverine.....	.....	.57

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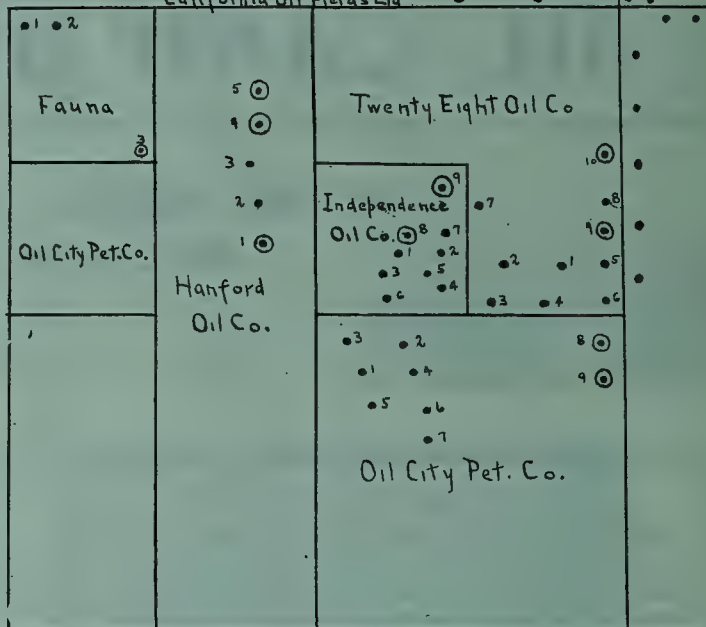
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is leased to the Independence Oil Company, upon a

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## Oil Contracted to the Standard Oil Company

## Cash in Treasury. Management Is Excellent

Other good stocks that will surely advance are

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Located in the celebra'd

## COALINGA DISTRICT

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## Dividends

Have paid over \$400,000 in dividends, and have just declared a regular monthly dividend, No. 43, of 5 cents a share.

## Low Capitalization

Only 100,000 shares.

## Large Acreage

Eighty acres, located in the Coalinga District.

## Large Production

Eight wells producing over 20,000 barrels per month.

## Management Is Excellent

## Oil Contracted to Standard Oil Co. for 5 years

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These maps are just out and show all the holdings of these fields, wells drilled, wells drilling, tanks, pipe lines, names of property holders, etc. They are the only correct maps of these fields published. For sale in San Francisco only by the

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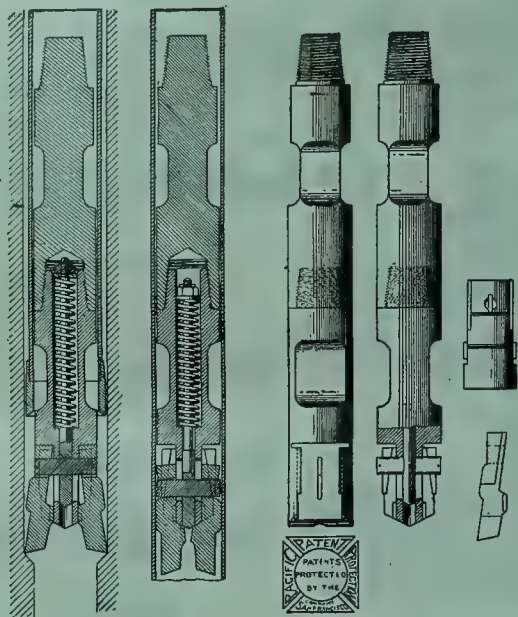
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## MAPS OF THE OIL FIELDS

Showing all of the Companies, Wells, Tanks, Etc., in the Kern River, Sunset, Midway, McKittrick and Coalinga Fields.

These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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### PRICE LIST OF MAPS.

Large Blue Prints, 25x25, single map	. \$1.50
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 86.

SAN FRANCISCO, CAL., SATURDAY, JULY 11, 1903.

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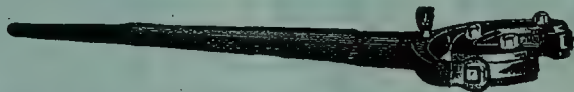
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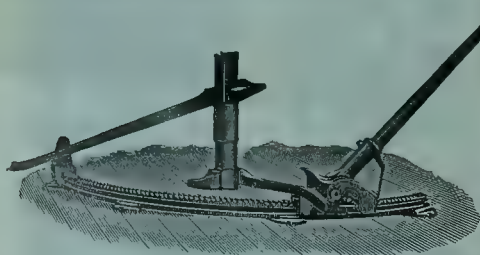


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# PACIFIC OIL REPORTER

VOL. 4. No. 36.

SAN FRANCISCO, CAL., SATURDAY, JULY 11, 1903.

PRICE, TEN CENTS.

## SUNSET PIPE-LINE.

### Full Particulars Regarding the Line Through this Great Field.

**Pipe is Now Being Shipped, and the First Twelve Miles will Soon Be Delivered.—The Line will be Laid to Section 27 Before January 1st.**

In the issue of June 23rd brief reference was made to the new pipe-line to be built in the Sunset-Midway oil field. At that time a contract was reported as ready to be signed with the National Tube company for the pipe to lay the line. Since then we have been enabled to secure positive information from a reliable source and this week the PACIFIC OIL REPORTER gives its readers the best piece of news concerning the Sunset and Midway fields that has fallen to our lot in many a day.

On Monday last H. A. Blodgett, of Bakersfield, of the banking firm of Jewett & Blodgett, and general manager of the California Consolidated Oil Fields company, and Joseph McDonnell, manager of the Sunset Supply company, called at this office and gave us the full details concerning the building of the line and also furnished us with an authentic map of the route of the line.

The Sunset Supply company has the contract for building the line, and this company has contracted with the National Tube company to supply the pipe, with a guaranty that the pipe will be delivered for the first twelve miles of the line within ninety days from date. The line starts in the southeast corner of section 12 near the railroad station at Sunset. At this point three large reservoirs of 350,000-barrels capacity each will be built. Work on these reservoirs will commence immediately. Work will also be pushed in digging the trenches for the pipe so that by the time the pipe begins to arrive there will be no delay in laying the line. It is expected to have the line completed to section 27 by December 15th, and then as fast as deliveries can be made the line will be extended to the properties of the Mascot, Croesus and Altoona companies in section 25, 32-24. It is the intention of the promoters of this line to extend it just as rapidly as possible into the upper Midway field to the wells of the Chanslor & Canfield and the Midway of Oregon companies.

The building of this line will

stimulate drilling operations and general development work in this important field as nothing else has ever done. It is expected that all the leases of the Jewett & Blodgett company and the Operators Oil company, (which is now included in the California Consolidated Oil Fields holdings) will commence drilling operations at once. The California Consolidated Oil Fields company will be prepared to purchase or store oil from all companies producing oil in the vicinity of the line, it being the object, said Mr. Blodgett, to place the Sunset district on an equal footing with the other districts of the State.

Reference to the map shows that the new pipe-line will start at the terminus of the railroad at Pioneer, and will tap the main producing companies as follows: Golden West, Sunset Center, Fulton, Maricopa, Wichita, Superior, Dirigo, Arcola, Arcola Extension, Euclid, Monarch, Emperor, Occidental, California Consolidated Oil Fields, Jewett & Blodgett, Colorado-California, Golden Gate, California Fortune, Croesus, Altoona and Mascot.

The line when completed, with storage, pump, etc., will cost fully \$250,000. The pipe already ordered amounts to nearly \$100,000.

#### Cost of Oiling Roads.

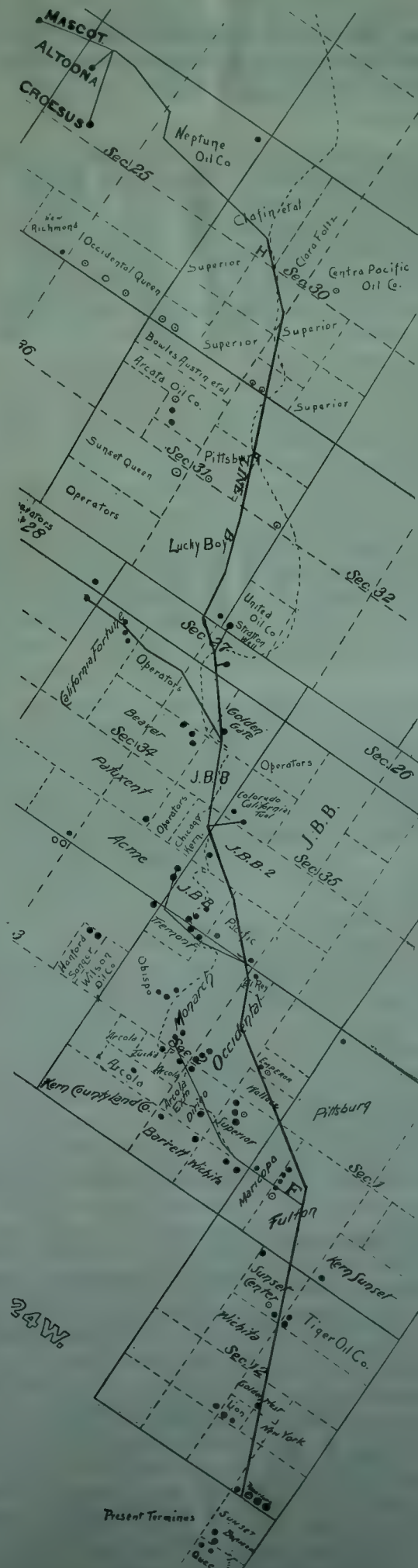
According to the Sanger, Fresno county, Herald, the average cost of oiling the roads in that section has been \$200 per mile. There are nearly twenty miles of oiled roads in the district and another ten-mile section is to be oiled within the next few weeks. If the road is properly graded and oiled at the same time it forms a hard roadbed which is dustless in summer and sheds water perfectly in winter.

The Sanger roads are in that condition.

#### Crude Oil for Hawaii.

The tank steamer Whittier was cleared Tuesday for Kihel with 420,000 gallons of Crude Oil, valued at \$14,000, as its cargo.

The barkentine Fullerton was cleared late Monday for Kihel with 630,000 gallons of Crude Oil, valued at \$21,000, as its cargo.



Route of the Sunset-Midway Pipe-Line.



## UTILIZING WASTE PRODUCTS.

### Valuable Substances that are Obtained from Worthless Coal-Tar.

#### A Noxious Ill-Smelling Substance that Holds Concealed within It the Greatest Treasures of Modern Warfare and Modern Chemistry.

The Woman's Home Companion has published an article from the pen of Waldemar B. Kaemfert, which is so replete with interesting information that it is reprinted in full, especially on account of the fact that what is said of coal-tar can be said with almost equal truth of the deposits of liquid asphalt that are found in inexhaustible quantities in many sections of California. A professor of chemistry in the University of California said recently to the editor of the PACIFIC OIL REPORTER, "The value of the petroleum and asphaltum fields of California is not realized. The crude petroleum of this State contains elements which make it extremely valuable. How to get these elements out of the crude is the problem that must be solved. They can be obtained; they must be obtained, and must be obtained cheaply. I believe the petroleum of an asphalt base will yet be recognized as much more valuable than the paraffine petroleum."

The following article shows what is made out of coal-tar, formerly considered a worthless refuse:

Black, sticky coal-tar, for decades a waste product in the manufacture of illuminating gas, has become the Aladdin's lamp of the modern scientist. This noxious substance, which for years trickled away from manufactories to soil pure water and impede vegetation, holds latent in its ill-smelling and unsightly bulk the greatest treasures of modern warfare and modern chemistry. It receives the salute of the soldier and the blessing of the housewife. It distributes havoc, for it is the basis of the most deadly modern high explosives; it dispenses peace, for, as a prolific fountain of carboic acid, it is the foundation of modern antiseptic surgery. It is the source of the sweetest and bitterest substances known to the modern palate. Saccharin, which is two hundred and twenty times sweeter than sugar, is found in large quantities in coal-tar; while antipyrin, which is so largely used now as a substitute for quinine, and probably the bitterest known drug, is also a coal-tar product.

Hidden in its dull-black ugliness is a rainbow of brilliant hues, for it is in coal-tar that aniline,

the basis of the most marvelous chemical color scheme in the world, was discovered. Lost in the vileness of its evil odor is a bouquet of exquisite perfumes. A pound bottle of artificial violets produced from coal-tar was recently appraised at the Baltimore custom house at six hundred and forty-five dollars.

From the essence that delights a dainty maid to a bomb that destroys a warship, is the long reach of usefulness of a substance discarded for years as the most worthless, most noxious in the history of the chemical evolution.

It is worth while to know how this wonderful substance is made and what it means to the world. In making gas coal is heated in clay retorts until it disintegrates; many vapors arise from it and pass through a system of pipes and through water in order to free them from impurities. These impurities condense and separate into two portions—a watery fluid, and a thick tarry mass. The first is our chief source of ammonia and ammonia salts; the second is a syrup-like, blackish, noisome ooze, which is known as coal-tar.

Although it is one of the most foul smelling products ever obtained by a chemical process, coal-tar contains a palette of gorgeous colors, a medicine chest of potent remedies for human ills, a laboratory of rare drugs, a storehouse of new foods and delicate tastes, an arsenal of the most deadly explosives known to modern warfare and a whole treasure-house of compounds so numerous and so varied in their properties that a list of them would seem well-nigh interminable. With the result of a hundred years of laborious investigation in the field of organic chemistry at his demand, the modern scientist transforms the black vical coal-tar from the gas retorts into some thousand of dyes, flavors and perfumes—an achievement never imagined even by the fertile brain of the medical chemist. For example, from the 140 pounds of coal-tar distilled from a ton of coal, science to-day makes dyes numbering over 2,000 distinct shades; makes them more-over so cheaply that vegetable dyes are rarely employed. Nor are the possibilities of this wonderful complex by-product yet fully revealed. Apparently it is

an inexhaustible source of valuable drugs and dyes, for each year it yields new substances to indefatigable claimants.

Of the many products of coal-tar and of the most valuable is benzine, a water-clear liquid, which the famous English physician, Faraday, discovered in 1825. Benzine is the source from which aniline is obtained, and aniline in turn supplies us with a series of brilliant hues of inestimable value. The first color was discovered by a mere accident. In 1856 Mr. Wm. H. Perkins, a young man about eighteen years old, was engaged in a series of experiments, the purpose of which was to produce artificial quinine from aniline. He failed to reach the goal for which he was striving, but he did something else that was, perhaps of greater importance commercially—he made the great discovery of the first aniline color, mauve. With that discovery a new industry was born. Soon after magenta, or aniline red, one of the most splendid artificial dyes, was discovered. Green, violets, blues, yellows and a host of rainbow colors rapidly followed. Their variety is now bewildering and their names still more so. But benzine yields something more than the aniline colors. It furnishes us with a powerful perfume known as artificial oil of

bitter almonds, or essence of mirbane, which is very extensively used by the soap maker for scenting his products. Since benzine has the property of dissolving fats and resins the housewife naturally keeps a supply of the liquid in her closet, for she finds it useful in cleansing fabrics. Benzine is also appreciated at its true value by the cyclist and football player—both know that the India rubber solutions that they so frequently have occasion to use are made by dissolving rubber in benzine.

In 1820 a chemist named Gorden discovered that coal-tar contained an ingredient peculiar in more than one respect. Chemists call Gorden's substance "naphthalene," and from it they obtain many beautiful colors, ranging from reds, scarlets and pinks of various shades to green and buttercup yellow. The butterfly hunter and the entomologist perhaps know little of naphthalene as a source of colors, but they do know that it is the best preservative for of butterflies, moths, insects, and cases delicate specimens in general.

In 1832 a substance which was christened "anthracene" was discovered in coal-tar. At first its value was not recognized but now it is of immense importance, for it is the base of a familiar color,

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Turkey red. For a long time the chief source of the color had been the root of the madder plant. In certain parts of France no other plant could be grown. In order to give a livelihood to the peasant in the madder-growing districts, the French war department generously decided that Turkey-red trousers should be worn by French soldiers. In 1868 two German chemists, Graebe and Liebermann, found that artificial Turkey-red—alizarin—could be made from anthracene. That discovery almost completely wiped out the madder-root industry. When Graebe and Liebermann told what they had succeeded in doing, the dyers of Europe and America perceived that a new stage had been reached in their industry. Anthracene, once considered a useless by-product fairly good for greasing wagon axles, leaped in price from a mere trifle to several hundred dollars a ton.

The most brilliant of the chemistry of coal-tar is the industrial synthesis of indigo. The indigo problem is one of the oldest of chemistry. Scientists found that, so far as indigo was concerned, the synthesis of a natural product proved by no means identical with the commercial product. Industrial methods can enter into competition with nature only if they are more economical. In the case of indigo there seemed hope of fulfilling this requirement. The most optimistic investigators could not help seeing that all the scientific evidence in their hands disapproved the probability of the practical synthesis of indigo. Even assuming that indigo could be prepared regularly and with good yields from coal-tar derivatives, there still remained a difficulty that all the toluene which is produced in the world and from which alone artificial indigo could be made would not meet the world's demand.

But the final result of this long research has shown that all the calculations of the experts were wrong. Artificial indigo can now be made cheaply and in quantities

sufficiently large to compete with the natural products. The solution of the problem is due to a German chemist named Baeyer, who showed what methods should be employed for the artificial production of indigo.

But this triumph is due not wholly to chemical science. Science showed the way to succeed, but was quite unable to clear away the difficulties springing out of practical and economical considerations. Here the proprietors of great industries had to work independently along paths for which theoretical knowledge could not serve them as a guide. Unlimited admiration is certainly due them for the courage with which they staked millions on the realization of one great idea. And yet we cannot help feeling some regret for the indigo planters of the far East. Rudely awakened from easy prosperity, they now see the day before them when the indigo plantations will disappear, just as did the madder-fields of Avignon.

Indigo as we received it from India and Java was a manufactured article the best qualities of which contained 59 to 70 percent of pure dye stuff, besides impurities which have always been considered harmless. Hence the artificial product did not seem to have much scope for improvement in the way of quality. Here chemists made another mistake. They know now that the impurities are not harmless, and that the blues dyed with artificial indigo are quite as superior in brightness and purity of shade to those obtained with natural indigo, as alizarin reds were to madder reds. This has, however, not always proved to be an advantage for the manufacturers of artificial indigo. The world does not ask for bright indigo shades, and in that respect many prejudices had to be overcome before artificial indigo was admitted as a substitute natural product in some of its most important applications.

Shortly after the discovery of anthracene a chemist named Mitscherlich announced that coal-tar

contained still another valuable substance. By chemists Mitscherlich's compound is termed "phenol;" physicians and people who never heard of phenol call it carbolic acid. Of all the coal-tar products, carbolic acid is perhaps the most widely known. Its wonderful antiseptic properties, first applied to modern surgery by Lord Lister, whose name will ever be linked with it, are familiar to every one. Carbolic acid, however, is not only serviceable to surgeons; it is also an important agent in many an industry. Like coal-tar products, it furnishes us with many radiant hues, which, in the present instance, vary from yellow and orange to brown and red. The yellow-coloring principle obtained from phenol is picric acid, which is the chief active ingredient in some of the most terrible explosives ever invented.

Although Perkins failed to obtain an artificial quinine, as we have already pointed out, a certain Dr. Knorr of Erlangen, Germany, was more successful. In 1883 he discovered antipyrin, said to be even a better assuager of fevers than quinine, and having the additional merit of being cheaper. Phenacetin, also a coal-tar product, has similar properties. Still another coal-tar drug is thallium, which has the beneficent power of allaying the yellow fever, so dreaded by every inhabitant of tropical, marshy regions. The hypnotic drug, sulphonal, must be mentioned in passing.

To give a complete list of all the coal-tar drugs would at least be but a tiresome and idle task. In addition to those already referred to we have but to mention antifebrin, asporal, diuretin, dulcin, euphorin, exalgine, hypnol, malarin, salol, trional and hylene, which are only a few of the many antiseptic, hypnotic and fever-allaying drugs, to show how long is the list and with what appalling names the numerous coal-tar progeny are christened. One substance, however, must be particularly referred to—the peculiar compound, saccharin. About 220

times sweeter than the sweetest cane sugar. Saccharin is particularly useful for preserves, jams and jellies. In sweetness it is surpassed only by its companion, saccharinamide. Saccharine is cheap, and, what is more, it will not mold or ferment, as sugar will in time. By reason of its non-nourishing and non-fattening properties, it is often prescribed by physicians for sweetening tea and coffee.

Cordilleras and Mauritius once grew the vanilla bean in large quantities. Now the plant has lost much of its commercial importance, for vanillin, obtained from coal-tar, so closely resembles the natural essence in taste that only by chemical tests can the difference be detected. Modern cooks unwittingly flavor their pudding-sauces with coal-tar vanillin, and not with the extract of the vanilla bean. Coal-tar flavors exactly similar in taste to raspberries, pepper and a host of other plants are also provided besides vanillin. If the chemists persist in discovering new and cheap products of coal tar for ordinary use it will soon be difficult to buy genuine plant extracts. Curiously enough, by combining vanillin with the previously mentioned coal-tar perfume, essence or mirbane, the exquisite perfume deceitfully called white heliotrope is obtained.

Besides perfumes, colors, flavors, drugs and explosives, coal-tar yields a number of powerful photograph developers, among the best known of which are eikonogen, hydroquinone, metol, amidol and glycin—names probably familiar to almost every amateur photographer. Some of the minor products must likewise be referred to. Among these are paraffine, creosote, pitch, artificial paving material, lubricating oil, a substance for tinting photographers' lenses, varnish and resin.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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**WILL BE EXTENDED.****The Railroad from Alcalde will Run to the Coast.**

Of late there have been a good many reports to the effect that the Goshen-Alcalde railroad line will be extended to the coast very soon. J. B. Newport of Hanford, acting superintendent for the Esperanza Oil company has returned to Hanford and says that he thinks it is certain that the Southern Pacific will at once extend the line to the coast and that extension will be in operation inside one year.

The Hanford Journal says the company has a corps of surveyors on the field surveying the line, and two of its officials were recently on a tour of investigation in the hills about Coalinga hunting for a place to procure good water, if such a place could be found, and Mr. Newport thinks there are places where better water for boiler and drinking purposes can be secured than any that have yet been developed. The officials made the remark—

chased to distribute oil along the line. Six new locomotives have been ordered from the Baldwin works equipped with oil burners and the engines now in use are rapidly being transformed for oil.

The scarcity of coal suitable for railroad use in Mexico is certain to aid in the adoption of oil, provided the government will make some tariff concessions or petroleum is found in the republic.

**Mountain Disappears.**

A mountain, sixty-five miles southwest of Fresno, in the Coast Range, has sunk, raising the bed of the Los Gatos creek from eight to twelve feet and laying bare a ledge of what is supposed to be cinnabar.

The news was brought by Antaio Urruchi, near whose home the remarkable occurrence was noted. He is a wealthy rancher and oil man, and owns the greater part of the arable land in that part of the county.

"The mountain has been a feature of that part of my ranch," he said. "Los Gatos creek flowed at its base. Some mornings ago we found that something had happened to the stream, and, going above the ranch, we found that the mountain had gone and the creek had been temporarily dammed by an uprising in the bed. The other side of the mountain had dropped clean out of sight, and the part that came down

**ASPHALT FRAUDS.****William H. Crocker Included Among the Accused.**

A dispatch from Trenton, N. J., states that Judge Kirkpatrick signed an order in the United States Circuit Court on Monday of this week directing Henry Tatnall, receiver for the Asphalt Company of America to bring suit against General Francis V. Greene and others to recover profits alleged to have been illegally made in the organizations and manipulation of the affairs of the asphalt trust. Others who are to be made defendants in these proceedings are A. L. Barber, George W. Elkins, J. J. Albright, Edward Hayes, C. K. Robinson, E. Burgess Warren, William L. Elkins, George D. Widener, Sidney F. Tyler, William J. Latta, William H. Crocker and Henry C. Spinks.

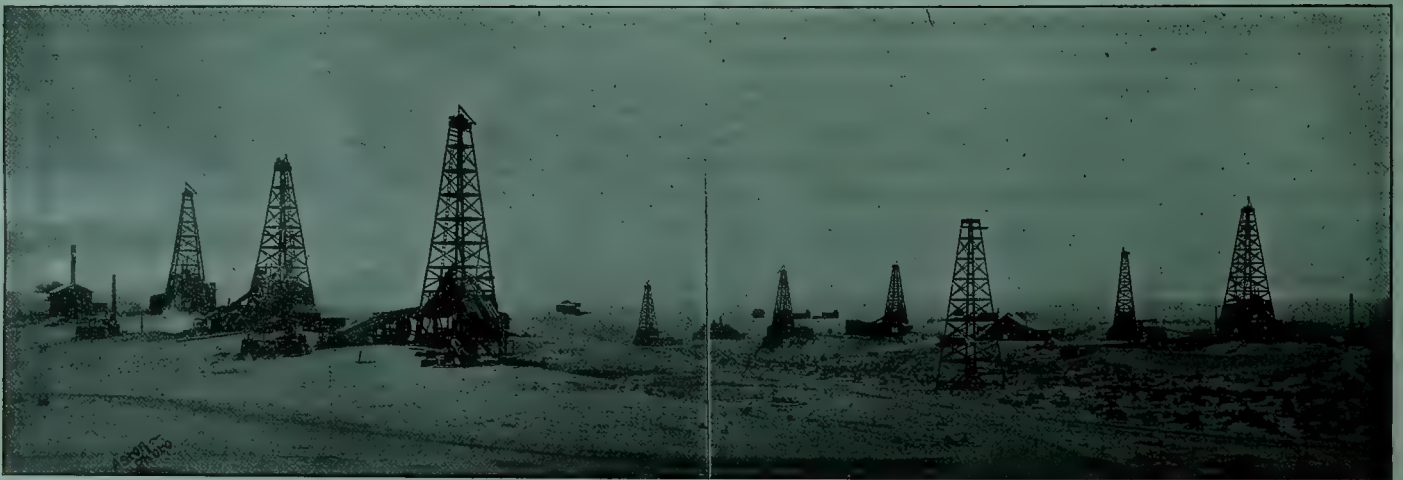
Judge Kirkpatrick's order was based upon a report presented to the Court by Receiver Tatnall, showing the distribution of unpledged assets of the company and recommending that suit be brought against the stockholders named for \$24,000,000 alleged to remain unpaid on the stock issued to them. On the capital stock of the company, consisting of \$400,000, at par value of \$50, it is charged that

shares of which were sold at prices far in excess of par value. In all these companies the receiver charges that the stock was held by the promoters and was transferred to the new company at increased prices.

**Oils from Texas Crude.**

In last month's issue the Petroleum Gazette spoke of being "creditably informed that a number of stills in the Standard Oil Company's refinery at Bayonne, N. J., are being run with Texas oil of the Beaumont grade, more or less desulphurized at the Texas refinery plants before being shipped to Bayonne." There appears to be no occasion to modify that statement. No doubt Texas oil of this grade will be called upon, either of itself or mixed with higher grade oils, to do what it can in lessening the gap between consumption and production, which has been widening so much in spite of the increased activity in the older fields.

From a report received by the Petroleum Gazette and deemed entirely reliable, recent refining results from Beaumont crude at Port Arthur, Tex., have been as follows: Of solar or gas oil 30 per cent; fuel oil 20 per cent; export oil 40 gravity, 80 Able or 120 flash test; lubricants 15 per cent; asphaltum 8 per cent; naphtha 1 per cent; loss 6 per cent. The sample seen of the illuminating or export oil is a nice water white in color, but the odor of it is but tamely defined as very disagreeable. However, there have been other oils—Lima, for example—whose odors in the earlier stages of their refining have had a pungency far



Group of wells in Sunset District.

one of them being in charge of the Southern Pacific company's oil lands—that they would give a great deal more for a good water well than they would for a good oil well just now, in the Coalinga district.

The company needs the oil for its coast line, and then again, if it is to compete with the Standard pipe-line on transportation it must shorten its line to the coast and do away with the round about way of reaching the coast via Lathrop or Tracy, over which its freight hauling is now nearly all done.

**On Mexican Railroads.**

The Tehuantepec National Railroad of Mexico, which crosses the Isthmus of Tehuantepec and is proving a rival of the Panama route as a factor in the transportation of goods from the Atlantic to the Pacific, has determined on the use of oil as a fuel instead of coal and wood, which have been used in the past. It is not yet known where the company expects to obtain its oil, but an immense reservoir with a capacity of 1,500,000 barrels has been erected at Coatzacoalcas, on the Atlantic coast, and six large tank cars have been pur-

chased to distribute oil along the line. Six new locomotives have been ordered from the Baldwin works equipped with oil burners and the engines now in use are rapidly being transformed for oil.

The scarcity of coal suitable for railroad use in Mexico is certain to aid in the adoption of oil, provided the government will make some tariff concessions or petroleum is found in the republic.

"There was a smell of sulphur in the air, but we did not find any such thing as a solfateria, such as we had in Italy and on the other side of the Coast Range. But all that country is rough and broken, and some eight miles south are the Sulphur Springs. So I suppose that the country is naturally volcanic. I don't know whether there have been any changes in the appearance of the country or not, as there are no roads and the trails are bad where there are any. I found that the mountain, in disappearing, had left a clear face standing straight and marked very clearly with a red cut. I have brought several specimens of this rock with me, as I am satisfied that it is cinnabar, and if I find that it is I will follow it up, for I won't mind owning a quicksilver mine."

Mr. Urruchi discovered the Confidence oil claim and sold the prospect for \$40,000.

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only \$10 a share has been paid in.

The report shows that all the assets of the Asphalt Company of America have been sold for \$3,380,000, and that after distributing all moneys received there will remain due to the creditors of the company more than \$27,000,000. Even should call be made on all stockholders for the amount unpaid on their stock, there would be a deficit of \$3,750,000.

The receiver charges that Greene, Barber, Hayes, Robinson, Widener, George W. Elkins and Warren, after the plan had been conceived, purchased the stock of the new Trinidad Lake Asphalt Company at \$48.50 a share and put it into the trust at \$100 a share, making a large profit.

William H. Crocker, one of the promoters, is charged with having sold the combination 799,650 shares of the Alcatraz Company in West Virginia (works in Santa Barbara County) at \$6 a share, par value being \$5. At the time, it is alleged, Crocker owned only 401,320 shares.

It is also alleged that Crocker also transferred to the Asphalt Company of America 28,725 shares of Denver Paving Company stock at \$5.71 a share, par value being \$1 a share. At the time Crocker had only 1863 shares of Denver Paving stock. Many other asphalt companies are named, the

from pleasant on first acquaintance and this objection to the Beaumont product may be removed or modified with further treatment. Whether this be the case or not it may be expected to play its part as a substitute in meeting demands which the production of higher grade oils is not sufficient to fill.—Petroleum Gazette.

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**WILL USE MORE OIL.**

**The Southern Pacific to Burn Oil on the Shasta Route.**

Arrangements are about completed for the introduction of oil as fuel on the entire California system of the Southern Pacific and the great oil tanks on the northern division are ready for use. The operating department has been engaged in affecting the abolition of coal for some time. It has involved the erection of a large number of storage tanks at different points on the system.

As soon as the few requisite changes are made in the coal-burning engines the recently constructed oil tanks on the company's Northern California lines, which are being stored with liquid fuel, will supply the engines on the northern division.

The great tank at Ashland, Or., capable of holding 55,000 barrels of oil, has just been completed, and those at Hornbrook and Edgewood, with capacities of 15,000 barrels each, are practically ready for use. At Dunsmuir another 55,000-barrel tank has been recently erected. One of the largest tanks on the system is at Red Bluff, with a capacity of 85,000 barrels of oil.

**Great Success at Salinas.**

That oiled roads are a success there is no longer any doubt and from now on the use of oil in street and road improvement near Salinas will be extensive, as the experimental stage is past.

Last week work was commenced soaking down Abbott street (on the cemetery road) with hot oil, and when completed and packed this will be one of the finest drives in Monterey county, as it joins the macadamized road for about half a mile out of town and for about three miles this road is as level as a floor, and absolutely free from dust.

**Wyoming Oil Companies**

We can furnish you nice folders with the map of Uinta county oil fields on one side, and on the other whatever advertising matter you may desire.

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**Wyoming Notes.**

C. O. Richardson has purchased R. C. Baker's rig near Spring Valley and is removing it to section 32, 15-118.

The American Consolidated company have leased section 23—railroad ground and will erect a rig upon the same immediately.

The Ohio and Wyoming Oil company, composed of leading business men of Cincinnati, will begin operations at an early date on their holdings in the Uinta county field, near where the Bettys well is going down.

The Atlantic and Pacific company have entered the second sand in their well on section 10 at a depth of 1,200 feet. A good flow of oil followed and is the same quality as that secured at 800 feet. This is one of the best wells on the field.

John Fitzsimmons and a force of men who have been drilling a test well near Randolph encountered a fine showing of oil, which is said to be almost pure kerosene. They were down about eighty-six feet when the oil burst forth. Their machinery being too light drilling operations have ceased and a Standard rig is to be erected on the property very soon.—Wyoming Press.

On Tuesday a showing of oil was encountered at the Bettys well just south of town at a depth of 600 feet. The well stands nearly full of water and when the drill was raised it came to the surface covered with oil and several gallons of petroleum floated to the top. The oil is said to be a high grade lubricant. This is very encouraging and bears Mr. Bettys out in his statement that he was positive oil existed in that vicinity.

A. B. Butler, who was prominently identified with the Kern River field in California, has leased section 23, township 15, range 118, being in the Spring Valley district, and has placed an order for two rigs to be erected at once on the land. He has also ordered a rig for section 33 at Hilliard and will push development work on this ground as speedily as possible. Mr. Butler is associated with Chanslor & Canfield, the oil leaders in California, and it is the intention of these men to spend at least \$100,000 this year in the Wyoming fields.

**Kansas Oil Production.**

There are at present from 350 to 400 producing oil wells in the State of Kansas with a capacity of fully 4000 barrels per day. About half of these are not yet connected with pipe lines and therefore are not actual producers. Development is progressing rapidly, particularly in the Chanute and Peru fields. The southeastern part of Kansas has large quantities of oil and gas located principally in Allen, Neosho, Wilson, Montgomery and Chataqua counties, but by no means confined to so limited an area. They are found at depths ranging from 500 to 1600 feet. The principal areas for oil are Neodesha, Fair, Chanute, Humboldt and Peru, but smaller quantities have been found in more than half a dozen places. Gas seems to be more extensively distributed than oil and is found in many places from Iola, Cherryvale and Coffeyville on the east to as far west as Moline.

Erasmus Haworth, who has made a careful investigation of the oil resources of the State, says that it now looks as though Kansas would soon be one of the leading oil States in America. Our strongest gas wells, says Mr. Haworth, produce from 10,000,000 to 15,000,000 cubic feet per day. We have large factories in the gas fields consuming enormous quantities of gas, which during the year 1902 used an equivalent of about one million tons of coal. These factories are zinc smelters, brick kilns, Portland cement factory, glass factories, flouring mills and many lesser ones. More are being added constantly. Twelve or fifteen cities and villages are almost entirely heated and lighted by gas.

At present development work is exceedingly active, from ten to fifteen oil wells being brought in per week in the Humboldt and Chanute districts. Great activity also is manifested in the Peru district and almost every well drilled is a producer. Gas has been found in large quantities as far as Moline. Also new and surprising developments have been made during the last few months in the southeastern part of Montgomery county about Bolton and Havana. Still further south at Bartlesville, in the Indian Territory, new developments of both oil and gas are reported, oil wells with a capacity of 250 barrels each and gas wells ranging from 10,000,000 to 12,000,000 cubic feet.

The Standard Oil Company years ago built a refinery at Neodesha with a capacity of 500 barrels. During the last season they enlarged to double its former capacity and reports are current to the effect that a still greater enlargement is under contemplation. Also they

extended a pipe line from Fair to Chanute and established a pumping station with a capacity between 2000 and 3000 barrels per day are now rapidly covering the Chanute oil fields with a network of pipes so that they may take oil directly from the wells as fast as they become producers.

**Big Storage Capacity.**

The Security Oil Company has let contracts for the building of eight earthen storage and wooden-lined tanks, to be located partly at Delphine, south of Spindle Top, Texas. The tanks will have a capacity of 130,000 barrels each, or a total storage capacity of 1,040,000. With the storage facilities already at their command, and with the additional eight storage tanks contracted for, the Security people will have, all told, and including their tanks at Sabine Pass and at Sour Lake, approximately 5,000,000 storage capacity.

**Office Removal.**

The office of the Caribou Oil and Mining company has been removed from the Nevada Block to 330 Pine street, room 36, San Francisco.

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D. M. KENT, Asst. Sec'y.

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# PACIFIC OIL REPORTER

Published Weekly  
The Oil Authority of the Pacific Coast.  
Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco  
Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
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SATURDAY.....JULY 11, 1903

After being drenched for long and weary months **Satisfactory** with a deluge of **Conditions** surplus oil it is refreshing to hear the desire expressed for more oil "on hand." With too much oil on hand, as with too little, there is dissatisfaction. In the first case producers were losing money steadily; with the latter the dissatisfaction is merely at their inability to take larger advantage of the opportunity presented.

Prices for oil are stiffening all along the line, says the Los Angeles Herald, and the demand for the product is increasing. At Coalinga the industry is again almost "booming," owing to a settlement of the transportation question by pipe-line connection. The Kern county fields are still hedged in by this difficulty, and in the not remote future they will be confronted with the new competing field looming up in Santa Barbara county. South of the Tehachapi most of the product—save Ventura oil—is consumed locally, and as development work has been held well in hand prices are up-grade with no surplus oil. Wildcatting appears to have received its quietus. The new month opens with a good deal of new work on hand and with a great deal more contemplated; all of this along legitimate lines.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## COALINGA.

### A Thriving Town that Prospers Through the Oil Industry.

Coalinga is a thriving little town, the main—almost the sole business of which is to supply the many and varied wants of the Coalinga oil field.

Coalinga was founded something like twenty years ago, when the San Joaquin Coal company commenced operations in mining coal in the canyon that runs into the hills just back of the Caledonian and Blue Diamond Oil companies. This company expended over \$100,000 in developing this coal mine, and succeeded in running many long tunnels into the hills on each side of the canyon, and in striking a number of wide veins of coal. A railroad was run from Coalinga to the mine and was equipped with an engine, freight cars, etc. The Southern Pacific company at the time was only running trains once or twice a week and made no effort to meet the company's demand for more trains by which it could fill its

vent into the field of the Standard Oil company following the developments of every portion of the field from the northeast to the southwest Coalinga has grown very rapidly.

Of course the main business centers about the oil industry. The selling of oil well supplies is the main line of business. The R. H. Herron company have had a branch establishment in the Coalinga field for a number of years, and do an immense business in supplying the field with its needs. The firm carries almost everything than can be needed under any exigency of the drilling business, and seldom have to send to Los Angeles or elsewhere to obtain any tool that may be needed for the most difficult fishing job. The firm has recently been obliged to obtain more room and will soon be located in new and more commodious quarters.

The National Supply company has recently entered the Coalinga field and is now prepared to supply the oil companies with every-

one is hunting a particular game on which he expects to win a fortune he can find it in short order, and no questions asked. Saturday night and Sunday are gala occasions, and although considerable hilarity prevails, and money is plentiful, there is little disorder and the services of a constable are seldom needed. Lots of money is spent in Coalinga in the course of a month. Drillers receive \$6 a day, and tool dressers \$3. This includes board. In some cases the wages paid are a little less, but the above are the prevailing rates. The work is hard, the climate is extremely warm and trying, and the hours of labor are long.

Most of the wells are put down by day's labor, although a number of contractors in the field who do their own work have made much money, and their services are in great demand.

Probably the actual resident population of Coalinga to-day does not exceed 500, yet on Sunday, when the men from the oil fields are in town the population is often over 1,000. As new wells are being drilled, as the field extends to the southwest, as the output of oil increases as refineries are established in the field as they soon will be the population of Coalinga will rapidly increase and within two years at the outside the town of 500 people will have grown to a bustling thriving oil well center of 2,500 or more.

### The Pipe-Line.

On account of the delay in the arrival of the pipe for the Coalinga line oil has not been sent through the line as soon as expected.

The oil is now flowing through the main line at an average rate of 5,000 barrels a day. Progress seems to be slow on account of the fact that the great tanks at each of the pumping stations have to be filled before the oil can be turned into the next section. On the first of the week the tanks at Tracey were being filled. At this rate the oil will not reach Richmond much before the 20th.

The report that the Standard has secured the refinery of the Union Oil company at Bakersfield is unfounded.

The Standard has decided to experiment with one extra pumping station to be located ten miles from Bakersfield. If this is found to work satisfactorily more additional stations may be established.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

SAN FRANCISCO, July 8, 1903.

MR. W. B. WINN, Editor PACIFIC OIL REPORTER.

My DEAR SIR: Allow me to congratulate you on the magnificent Coalinga edition of last week. The PACIFIC OIL REPORTER is by all odds the **best oil paper in the United States**; if some of the others would show your enterprise it would be very much better for the industry. I think your paper publishes **more original matter** in the course of the year than any other one I am familiar with. Keep up the good work.

Yours very truly,

C. T. DEANE,

Secretary California Petroleum Miners' Asso.

constantly increasing demand for coal. Then there were accidents from fire, the tunnels could not be braced but what they would collapse, the mine was in danger from flooding, and in fact difficulties so increased that the company, after expending over \$100,000, finally decided to cease operations, the railroad and its equipment which had cost many thousands of dollars was sold for \$4,000, the tracks were torn up, and now the mine is a scene of waste and desolation, water is flowing from the abandoned main tunnels, and there is no immediate prospect of active and early resumption of work.

With the abandonment of the coal-mine Coalinga languished in a state of innocuous desuetude until the oil excitement started with the discovery of oil, and its subsequent development by Chanslor & Canfield, the Home Oil company, and their associates in the developments at Oil City. Then the little town took on some semblance of life, and has been steadily growing. Lately, with the ad-

thing and anything they may require. The National claims to carry a complete stock of oil well supplies of every nature, has secured a site for a new and commodious building, and is doing its full share of business in the way of fitting up companies with everything they may need in their line of business. Coalinga has a number of general merchandise stores of which the largest and most complete in the line of stock carried is that of A. E. Webb, where one can obtain almost anything he desires in in the way of groceries, dry goods, etc. There is a well equipped lumber yard, a brick kiln where bricks are being burned with oil, there are meat shops, barber shops, blacksmith shops, and a machine shop that would be a credit to a city of ten times the size of Coalinga.

Of course Coalinga has all the characteristics of a mining, frontier town, and everything is run "wide open". There are a dozen saloons more or less, and if any-



# PETROLEUM AND TIME.

## Position of California Formations in the Long Geological Scale.

### Irrefutable Evidences that the Petroleum of California was Made in Relatively Recent Time and Not Towards the Dawn of Creation.

The nature of petroleum in California, as elsewhere, varies with the age of the rocks in which it is found and for different reasons a knowledge of the geological position of the strata to be prospected for oil is important.

Not many oil men, even of scientific education, pay any particular attention to this end of the problem, but there is much of interest in it and it is not hard for the most practical man to learn the relative age of the strata through which his drill is dropping.

The accompanying diagram will serve to give in a somewhat rude and general way an understanding of the "geological horizon" of California oil-yielding formations. The diagram is an outline representation of the succession of sedimentary rocks which have been laid throughout the world since the globe cooled and the waters began their erosion and piling up of the detritus that became the stratified rocks of the earth's crust. Except in the Tertiary age the periods and epochs into which geologists divide these ages are omitted.

Petroleum in various forms is found in all the sedimentary rocks which have not undergone metamorphic change, from the Archæan up to the formations of the most recent time, and the range of its occurrence thus covers all time from the dawn of life on the earth to the sands that were piled but yesterday. The petroleum was not necessarily created in the rocks in which it is found but hydrogen and carbon have been uniting as bitumens practically as long as waters have flowed on the earth.

As is illustrated by the diagram, California's petroleum was made in relatively recent time, while the oils from the Eastern part of America are found in rocks which were laid far back towards the dawn of creation. In California practically all of the bitumens are found in rocks of the Tertiary age and their utmost range does not pass the Lower Cretaceous. In Pennsylvania and Ohio most of the oil comes from rocks of the Upper Devonian age. More or less oil and gas is found also in Carboniferous strata and in the Appalachian region oil and gas

are found also in rocks reaching back to Lower Silurian time. Eastern oil is all old and some of it is the oldest in the world.

Lower Silurian strata yield oil and gas in New York, Ohio, Kentucky and Missouri. The Canadian oil from the Enniskillen field comes from the Lower Devonian and in Kansas oil and gas are yielded by Carboniferous strata. But, as stated, Upper Devonian strata have produced the great bulk of American petroleum.

How long those Eastern sandstones and limestones have lain there storing the hydrocarbons that nature has so mysteriously distilled, geologists speculate and dispute about. The time that has elapsed since the formation of sedimentary rocks began is estimated by leading geologists at from twenty million to one hundred million years. Whatever the time it is so great as to pass the ability of the human mind to conceive it.

Elsewhere in the world petroleum is found in the rocks of every age, though in many regions the determinations of the age of bitumen-bearing strata are yet wanting or doubtful.

In California all the oil yet produced has come from strata of the Tertiary age, which just precedes Quaternary or recent time. Professor W. L. Watts of the State Mining Bureau, who has been studying the oil fields for years, has given especial attention to the determination of the ages of the oil yielding strata by their fossils as those who have read his bulletins know, and most of the work done in this line has been by him.

The reason that practically no petroleum is found in California in rocks older than the Tertiary is the very good one that there are few of an older age that have not been changed by metamorphism. Metamorphic rocks do not contain bitumens, the metamorphic action having destroyed them or driven them out if they were present before.

"As a general proposition," says Professor Watts, "we do not in California find any marked metamorphism until we get down to the Cretaceous rocks, although the Tertiary rocks have in some places been subjected to some considerable change. Evidence of metamorphic action is still more

apparent in the pre-Cretaceous." California's stratified rocks were either not laid in the world's earlier ages or have been changed to metamorphic rocks, and so it is that here petroleum resides in the Tertiary rocks. How old the oldest of the Tertiary rocks are is a mere matter of speculation, but their age probably reaches into the millions of years. Yet these strata were laid under the sea long millions of years after those that spout oil in the Eastern states and it may be millions of years

able producing field may be developed in that region, though in the northern part of the State the unaltered rocks do not lie deeply above the metamorphic.

But this is all the known California petroleum older than the Tertiary and we must skip to the latter age in ascending the geological scale. But here we find abundance.

In the geological text books and by geologists generally the Tertiary age is divided into the Eocene, Miocene and Pliocene epochs but the rocks of this age in California are now generally classified as Eocene, Lower Neocene, Middle Neocene and Upper Neocene. This distinctive classification of California rocks of this age was first made by the United States Geological Survey. It is adopted by Professor Watts in his bulletins and by other authorities. By this classification the rocks of the Pliocene and Miocene epochs are grouped as Neocene and the group divided as has been given. The reason of this is that particularly in California there is such a gradual transition from the Miocene to the Pliocene that it is difficult to distinguish them by the fossils of the Tertiary system.

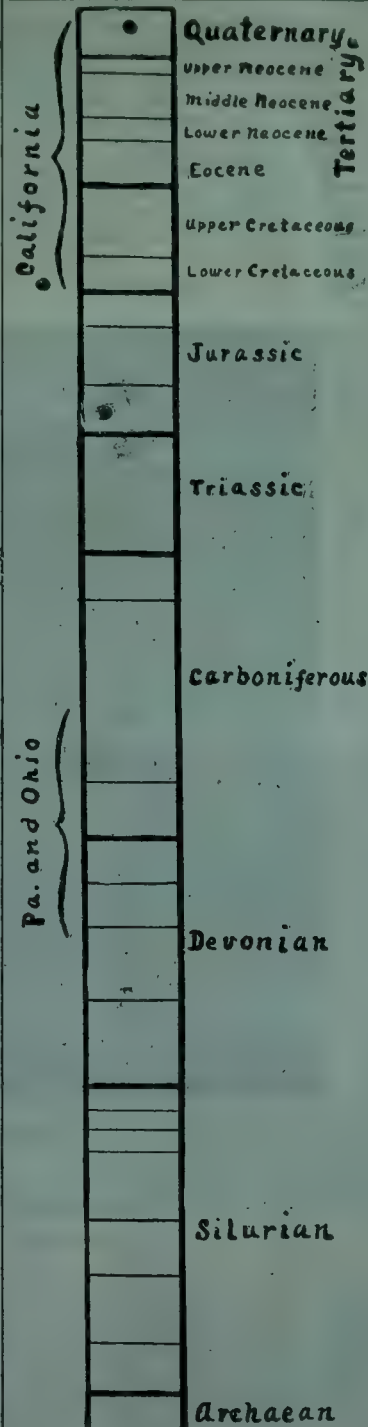
The general rule that the older the formation the lighter the oil applies here. The Eocene rocks yield oils that are generally of lighter gravities than those above. The oil-yielding strata of the Coalinga field belong to the Upper Eocene and Lower and Middle Neocene epochs and this is the only important field in which oil is yielded by Eocene rocks. The Coalinga oils are mainly light ones. The Sespe and Devil's Gate districts in Ventura county present Eocene oil-yielding rocks as do the Santa Ynez mountains in Santa Barbara and places in San Mateo county.

The rocks of the lower portion of the Middle Neocene are the prolific ones which yield the bulk of the petroleum now produced in California. The oil from these strata is a heavy oil characteristically and it is from rocks of this epoch that the bulk of the fuel oil is produced.

Watts in one of his bulletins gives a concise recapitulation of the geologic range of California oil-yielding formations as far as they have been determined, and in the course of it says:

"In the foothills bordering the San Joaquin valley, the oil-yielding formations may be referred to the Middle Neocene. In the foothills of the Sierras west of Bakersfield in Kern county, petroleum is found in formations ranging from the Eocene to the Middle Neocene. In these oil fields the most productive formations are in the lower portion of the Middle Neocene series, and valuable quantities of heavy oil are found in the Upper portion of the Lower Neocene. At McKittrick the oil-bearing strata are of the Middle Neocene age; at the Avenal and Kreyenhagen districts the oil-yielding strata are of Lower Neocene age."

The Lower and Middle Neocene comprise most of the oil-yielding formations of the State. The Puente and Los Angeles fields belong to the Middle Neocene. The Middle Neocene corresponds closely with the Miocene to which the oil formations of the great Baku field are referred.



The Scale of Geological Periods.

since they were folded by the subsequent uplifting of the coast range which made the anticlines that people are so keen after today.

The oldest petroleum in California, as yet observed, is found in Colusa county in the neighborhood of Sulphur and Bear creeks and elsewhere. The rocks which yield the seepages there are of the Lower Cretaceous and are thus much older than the Tertiary. Colusa is thus geologically a distinct field and the oil is of a different character from any found elsewhere in the State. It has not an asphaltic base and is probably a paraffine oil. A valu-



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

Copies of the Sunday Alaska Dispatch, published at Juneau, give the news that both the Standard and the Southern Pacific are reaching out for the newly discovered oil fields of the northern territory. J. Worthington and J. T. Archbold, of the Standard, are now in Alaska looking over the ground with a view to operations there. Mr. Worthington is in charge of extensive drilling operations for the company and Mr. Archbold is the son of the vice-president and one of its trusted men of affairs.

Mr. Harriman and the Southern Pacific interests are represented by J. B. Treadwell, who has long acted as expert for the company in this State and in Texas. He is to make a thorough examination and report on the districts of Southern Alaska, particularly the Kayak district. The Dispatch says that while it is generally supposed that Mr. Harriman is looking for fuel, that of the Kayak district is notoriously of too high a grade to be suitable for this purpose and expresses the opinion that the Southern Pacific magnate is so well pleased with the results of his oil ventures that he is going into the business as a speculation.

From the amount of oil news in the Dispatch, it is evident that there is much interest being taken in the Alaskan fields. The exploiting of the field is being done by practical oil men rather than the speculators, which, the Dispatch says, is a good thing for all.

#### COALINGA.

Pleasant Valley Stock Farming company is rigging up for well No. 1 this week, located on SW $\frac{1}{4}$  of section 6.

The Hanford Sentinel says: The latest successful oil strike in the Coalinga field is where the Limited No. 2 developed a few days ago a great well. It is reported that the oil is of good quality, and that the well has an output of 5000 barrels a day. The drillers went deep and struck it rich.

The M. K. & T. Oil company, that has been drilling for nearly one year and reached a depth of 2,000 feet, have shut the water off and are now penetrating oily formation. Indications look very favorable now, and it looks as though the company will be rewarded for its persistence to reach the oil sand.

Four rather serious fishing jobs were reported last week in this field. The Union Oil company lost a stem and bit, the Caledonian a bit, the Independence a bit, and the Esperanza the lug off of an under reamer. Although all of these companies experienced considerable delay on account of the accidents, the lost tools have all been regained and work resumed.

The Blue Diamond Oil company has finished fitting up its rig and will resume drilling this week. It has already 280 feet of hole with 11 $\frac{1}{2}$ -inch casing in it. The casing will be pulled and a hole sufficiently large to continue down to the second sand will be drilled. W. A. Sleep, president of the company, and R. J. Fitzgerald, one of the directors, both from Grass Valley, will manage the work.

J. W. Pauson, of San Francisco, secretary of the Independence Oil company was in the field in the interests of his company. This company has already seven good producing wells, is drilling on No. 8, and will continue drilling

uninterruptedly from now on. Mr. Pauson and Mr. C. V. Wisheart are interested in the land the SE $\frac{1}{4}$  of section 2, 21-14, near Alcalde, where they expect to begin drilling a well in the near future.

The windstorm that visited this field on the night of July 1st, proved very disastrous and resulted in the destruction of five derricks: one of the Caribou, two for Oil City Petroleum, and two for Twenty-eight Oil company. The roofs of the two Standard tanks on section 21 were blown off, but the tanks, which contained eight and twelve feet of oil, remained intact. Several smaller buildings throughout the field were also damaged from the effects of the wind.

Starbuck, president; C. C. Chapman, vice-president; W. R. Collis, secretary; E. W. Dean, treasurer.

The Puente Oil Company has commenced a rig for another new well, No. 70.

The Santa Fe Railway Company has donated 150 barrels of oil to be used on the road between Fullerton and the wells, and Roadmaster Porter will put it on in a few days with a lot of other oil, making the second oiling.

The Olinda Crude Oil Company has filed a petition in the Superior Court to have its name changed to Olinda Land Company. It is said the company will lay out a town on the ranch as soon as the electric line builds out that way.

#### KERN

The Peerless and Fulton Companies this week pay out over \$24,000 for labor and supplies for the past month. This is in addition to \$14,000 paid in dividends.

The Belmont Oil Company has leased to George S. McMurtry, the south half of the northwest quarter of section 11,

30-21, for twenty years, at one-eighth royalty.

The Kern King Oil and Development Company has assigned to B. K. Lee lease from Belmont Oil Company of the south half of northwest quarter of 11-30-21.

The independent companies in the Kern River field are now all holding out for 30 cents a barrel, and are getting it. This is for spot cash. No long term contracts will be entertained at this figure.

The Junction Oil Company will soon drill the fifth well on its property on 9-28-29 at Kern River. The work of erecting the rig was begun on Saturday. When this is completed a sixth well will be begun.

John M. Wright and his associates control over 3,000 acres of land in the Carissa country, ten miles west of McKittrick. They are sinking a well to test for oil, and the drill is now down nearly if not quite 550 feet. Oil indications are excellent.

The twenty acres in section 29-28-28



Murphy and Central wells, Whittier field.

#### CAREAGA.

A press dispatch from Santa Barbara says that an oil well, near Careaga Rancho, in the northern part of the county, came in Monday evening. It proved one of the most remarkable wells yet discovered on the Pacific Coast, the first flow being at the rate of forty barrels per minute, according to the estimates of experts on the ground. Oil shot fifty feet above the top of the derrick.

The depth of the well is in the neighborhood of 2000 feet. Drillers had been at work on the well several weeks and expected it to come in several days ago.

Monday afternoon they pumped the sand from the well and a few minutes after drilling work was renewed the gusher came. A number of oil experts were present from various parts of the State.

#### FULLERTON.

Twenty-nine oil wells are now being drilled in the Fullerton fields.

The Menges Oil Company has commenced a second oil well on its lease.

The Sulphur Mountain Petroleum Company, Tuesday, elected William

**DEBENTURE SURETY COMPANY**  
INCORPORATED  
Rialto Building  
San Francisco.

#### THE RIGHT KIND OF A MINING PROPOSITION.

Tunnels Nos. 1, 2 and 3 are now being run on the "Omah" mine, taking out high grade ore. The company has low capitalization, \$100,000; high grade ore; ample wood and water on the property; no debts; three miles from railroad; company officered by bankers and practical mining men of San Francisco; thoroughly competent superintendent in charge; no salaries to officers; no promotion stock. Especially important is the fact that enough ore is being taken from the tunnels each day to pay all expenses of operation, leaving a very large net amount for dividends of 1% beginning in October, with the possibility of 5% before January 1, 1904.

If you are displeased with your purchase of stock, return it inside of 90 days and we will buy it back at the price you paid us for it. Our reasons for such an offer: we are satisfied with 1% dividend per month with possibility of 5%.

Small amount of stock for sale at 5 cents per share. Remit direct to us or send for further particulars.

DEBENTURE SURETY COMPANY (Inc.)  
Rialto Building, San Francisco, Cal.

Mention this paper.



in the Kern River field, known as the Gillis property, has changed hands. It is understood that Dr. C. T. Deane, secretary of the California Petroleum Miners' Association, is one of the purchasers; the price paid has not transpired. This is one of the best pieces of property in the field.

The recent deal between M. Grossmayer to Commodore Jastro et al., does not mean that the former intends to quit the oil business. He will be associated with the gentlemen interested in the enterprise. Two wells are to be sunk at once and the number will be increased to seven. There are two wells on the tract at the present time.

Oil men in from the McKittrick field report that the Southern Pacific is buying all the oil in sight in the district at good prices, hence there is comparatively little spot oil to be had. The railroad company has now eleven huge tanks at the field for storing fuel oil and these are all empty, the oil purchased by the company having been shipped out. The McKittrick field is,

feet. Both wells are to be put on the beam. Conservative estimates place their production at at least 800 barrels. No. 3 will be completed this week. The drill penetrated the sand on the 3rd. President Wright says these three wells will easily produce 1000 barrels a day, and he is ready to take a contract for any amount of oil for the next five years at 30 cents at the wells. He will hereafter finish up all the Fulton wells with drive pipe, which will better withstand the enormous pressure.

A meeting of the stockholders of the Dabney Oil company was held at Bakersfield on June 30th. There were present either in person or by proxy nearly 500 stockholders, representing about 90 per cent of the stock out. Every one was well pleased with the condition of the company and enthusiastic over the prospects for the future. A long exhaustive report was read by the president giving in detail the progress and policy of the company in the past and outlining some of the plans for the future, which was very satisfactory to the

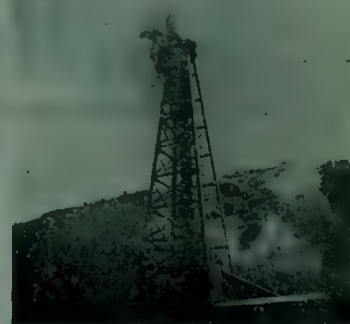
duet reached the point where it paid the local jobber to import Kern River it was done; and as there is no reason to suppose that he is going to buy in other than the cheapest market the price for the local crude cannot possibly sail above the 90 cent mark and 80 cents would be a safer proposition.

#### MENDOCINO.

The Ukiah Oil and Development Company are busy with their well in the western part of town. The drill is now down about one hundred and fifty feet. Small quantities of oil are taken from the well occasionally. They will endeavor to go two hundred and fifty feet before putting in casing. Mr. Youle, the veteran well driller, thinks that the chance of striking oil in paying quantities is very good.

The well of the Russian River Oil and Development Company has been sunk a little over one hundred feet. Some oil was found in the clay at about eighty-five feet. The first one hundred feet is fourteen inches in diameter. This has been cased up and the hole is now

well continued to spout from 120 to 160 feet high for three or four hours and spouted again Tuesday morning. It is estimated by careful calculation that from thirty to fifty barrels a minute



"Spouting" Pinal well.

flowed from the well while it was spouting over the top of the derrick. A test of the oil made while Mr. Armstrong was there showed it to be 23 gravity. The well was capped Tuesday morning, and it has been determined to build a pipe line to dispose of the Pinal Company's oil. It has not yet been determined where the oil would be piped. Three tanks have been set up near the well and some of the overflow oil of last Monday has been pumped into them. They hold 1500, 1200 and 1000 barrels—3700 barrels in all, and are full, and yet there is much oil in the pools above the various dams that have been constructed. The gas pressure in the well is very great. The oil seems to generate a gas and a bottle of oil that had been tightly corked and set to one side near the well burst, supposedly from gas pressure. The oil had been taken from an open pool on which the sun was shining, but was set away in the shade. The gas story seems to be the only way to account for the bursting of the bottle.

#### SARGENTS.

Colonel Beane's oil well at Sargent is down nearly 1,000 feet, but no indications to speak of have been encountered. The Alberta is still going down, having nearly reached the 1,000-foot level. The new well of the Watsonville Oil company is down 500 feet. The formation is similar to that of the last well, and it is expected that a flow of oil will be struck at about 650 feet.—San Juan Valley Echo.

#### WHITTIER.

Last month from sixty thousand to sixty-five thousand barrels were shipped out of which 30,000 were shipped by the Central Oil Company. Surplus oil is a minus quantity these days, and development work is going on apace. A new syndicate has been formed to take up the lease relinquished by the North Whittier Oil Company. The North Whittier leased from I. W. Hellman and sent down a couple of holes. The first was a failure, but the second would have been a good well had it not been that just as it was being finished up the casing fell in, making it impossible to shut off the water. A good deal of money had been expended, and the stockholders became discouraged. Included in the new syndicate is Parley M. Johnson, Walter Young, Judge C. C. Wright and "Golden Rule" Jones of Toledo. Work is to be begun early this month, and among men acquainted with the Whittier field no doubt is being expressed as to this new company's getting oil all right.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.



Oil wells at West Lake Park, Los Angeles.

like the other fields of the country, quite active and the oil men interested there are disposing of their oil at good prices.—Californian.

An important sale of oil property was made July 6th, when Judge Bennett in the Superior Court confirmed the sale by George McCracken, administrator of the estate of W. G. Wallace, deceased, of the oil lands of 6-11-32 at Sunset to the United Crude Oil Company. The property has been leased to the purchaser for a long time and the latter has one well on it already completed. W. G. Wallace was one of the pioneer operators and prospectors in that section and the land was taken up by him years ago. It is in the proven territory of the Sunset district. The price paid for the land, according to the court record, was \$4500.

Fulton No. 1, at the Sunset field, has been perforated. It compares favorably with No. 2. It takes spells of boiling over the 95° casing. The casing was landed in shale at something over 800

stockholders. A resolution was passed approving of the administration, and ordering the continuation of the payment of dividends at the rate of 15 per cent per annum. The following were elected directors: A. H. Butler, San Francisco; E. J. Miley, McKittrick; Dr. Chas. H. Earle, Los Angeles; Thos. F. Gilbane, Providence, R. I.; Ira Taylor, New York. A. H. Butler was re-elected president.

#### LOS ANGELES.

South of the Tehachapi the market for oil has received a filip during the past month that probably will send the product up to the topnotch figure at which it is limited by the price of imported oil. The crude is selling in the local field at 65 cents, and Whittier oil has been selling at 70 cents at the tanks; that virtually is at the wells, as it is carried by pipe to the tanks. At the present writing Whittier oil is selling 5 cents stronger, and the local product will probably stiffen within the next week or two. It has always been the case, however, that when the local pro-

being drilled eleven and five-eighths inches. This size will be continued as far as possible. The drills are still working in clay. J. E. Sorey, the contractor, reports that the foundation is very similar to that of the Coalinga fields and that the outlook is very good.

#### SANTA MARIA.

The latest information in regard to the Pinal well No. 3 near Santa Maria, which was reopened last Monday and repeated its former record as a spouter, late that evening, is brought by Attorney C. U. Armstrong, of Santa Maria, who was on the ground at the time. This well clogs itself after spouting a few hours and after the last big period of spouting it was left alone and in the meantime dams and tanks have been built and preparations made to cap the well and get it under control. Five dams across the deep narrow ravine were provided and one and nearly another of these was filled with oil during the first hour of the spouting, while Mr. Armstrong was on the ground. The



## CRUDE OIL IN HAWAII.

**It Has Proved Vastly Superior to Coal as Fuel.**

**It Requires Less Labor; It is Cleaner; It is Cheaper at Two Cents per Gallon than Coal at \$4 a Ton.**

The Navy Department is in receipt of some interesting advices with regard to the use of crude oil as a substitute for coal in the Hawaiian Islands, an enterprise that appears to have been given a great impetus as the result of the experiments made by the Bureau of Steam Engineering last summer on the steamer Mariposa, plying between San Francisco and Tahiti, via Honolulu.

The industries of the Hawaiian Islands afford unusually favorable opportunities for the substitution of oil for coal. The high cost of coal, the relatively low cost of crude California petroleum, the demand for large quantities of fuel in the sugar mills and other thriving industries and the necessity for a fuel that can be employed night and day with a minimum amount of supervision, combine to emphasize the value of oil as a substitute for coal. Some of the advantages which have already been developed are set forth in the following extract from a Honolulu paper which has reached the bureau and which will be incorporated in the forthcoming final report of the Edwards Board on Tests of Liquid Fuel for Naval Purposes:—

"The substitution of crude oil as fuel in place of coal in Hawaii is proving an unqualified success. On Maui the Halku, Paia, Hawaiian Commercial, and Kihei plantations are using oil. On this island and Kahuku, Waiahuva, Oahu, and Honolulu are using it and Ewa will be in a few weeks. In this city the Young Building is burning oil, and at the beginning of this week the Rapid Transit Company converted all of its furnaces into oil burners. So far as reported, the change is working satisfactorily on all of the plantations, with a uniform reduction in cost of approximately 30 per cent.

"In addition to the saving in dollars, oil fuel has three distinct advantages over coal. First, it requires much less labor to handle it. This is a serious consideration on the plantations, where every labor saving device, and process should be fostered, as a means of meeting the demand for labor. Any machine, device, or process which enables one man to do the work of two, even though its operation costs as much as the two men do, is a distinct advance, as it reduces the requirements for laborers by 50 per cent, in connection with that particular work. This is an important consideration now, and it may in the future prove most vital.

"Second, it is a clean fuel. Instead of a grimy, dusty and disagreeable spot, such as the regulation coal firing room is, where oil fuel is in use, the fire room becomes a show place, as clean as a parlor, while the one fireman wears a 'biled shirt' and a standing collar, if his tastes run that way.

"Third, it is smokeless. Not comparatively so, but absolutely smokeless. If any smoke issues from the smokestack it is proof positive that there is some defect in the burner used, or in the arrangement of the furnace. An inspection of the Rapid Transit furnace and smokestack will demonstrate this fact to any one who desires to prove it.

"This last-named advantage is of great importance in Honolulu. With only soft coal available, even the few fuel using concerns in town were becoming a serious nuisance to all in their immediate neighborhood. A few more years of development would have made us a small Pittsburgh so

far as the smoke nuisance is concerned. No smoke producer in Honolulu can hereafter plead that he cannot prevent it.

"With cheapness, economy of labor, cleanliness, and abolition of smoke in its favor there does not seem to be any reason why oil should not at an early date supersede coal in Hawaii as a power producing fuel. Its early adoption here is evidence of the progressive spirit of our people and their ability to keep step with the age."

Other data received by the department show that the above statements concerning the availability of oil over coal in Hawaii are not overdrawn. The coal supply of the islands is drawn from two sources; the Wellington coals, produced in Australia and transported 5,000 miles, and the Nanaimo coals of British Columbia, which have to be brought 2,200 miles, are both inferior to any coals commonly used in the United States, having a very high percentage of clinker and depreciating rapidly on exposure to the elements because of their large sulphur content. The supply of coal kept on hand at the naval station at Honolulu for the use of naval vessels is shipped out by the department from San Francisco and costs delivered from \$9 to \$10 per ton. Merchant coal sold in the islands costs a dollar or two more and is inferior in quality. Thus the problem of economy in fuel in the islands is an inviting one for the crude petroleum producers.

The Bureau of Steam Engineering has evolved a formula to determine the relative economy of oil and fuel, which may be applied in this case with interesting results. Reduced to its simplest terms this formula indicates that twice the cost of oil in cents per gallon represents the cost of coal in dollars per ton. In other words, oil at 2 cents per gallon is as cheap as coal at \$4 per ton. On this basis, with coal at about \$12 per ton in Honolulu, it would be more economical to burn petroleum at any price up to 6 cents per gallon, leaving out of the calculations all the other advantages to be obtained by the substitution of oil for coal. As a matter of fact, the cost of crude oil delivered in Honolulu is less than 3 cents per gallon, and it could therefore be employed in competition with coal at \$6 per ton, or about one-half the present price.

Commander Edwards, chief of the special board on fuel oil tests, calls attention to the fact that oil is an ideal fuel for the grinding mills on sugar plantations. These mills require to be run night and day during the grinding season, when the cane is brought in more rapidly than it can be disposed of and is liable to deteriorate until ground. It has been found extremely difficult to obtain competent stokers for the night shift at these mills and, in fact, firemen for day work at these mills are very scarce and command relatively high wages. The use of oil simplifies the stoker's task, for instead of handling large quantities of sulphurous soft coal he is only obliged to supervise the burning of the oil, his chief duty being to see that the flow of fuel is unimpeded.

Officials of the Bureau of Steam Engineering have been interested to find, upon looking up the statistics showing the exports of crude petroleum, that this item in our trade with the Hawaiian Islands has made its first appearance within the past ten months. The latest statistics show that for the ten months ending

April 30, 1903, 5,375,084 gallons of crude oil, valued at \$165,635, were shipped to the islands, while for the corresponding period a year ago no shipments whatever are recorded. The extent to which the exports of crude oil have recently overshadowed those of refined in the matter of quantity are graphically shown by the following figures for the first four months of the current calendar year:

January—Refined, 55,975 gallons, valued at \$34,538; crude, 1,452,000 gallons, valued at \$43,400.

February—Refined, 43,323 gallons, valued at \$10,513; crude, 2,120 gallons, valued at \$105.

March—Refined, 181,978 gallons, valued at \$31,654; crude, 218,000 gallons, valued at \$7,150.

April—Refined, 46,031 gallons, valued at \$9,009; crude, 1,092,000 gallons, valued at \$36,400.

The item of freight to the Hawaiian Islands, and indeed to any other point from the Pacific Coast, is always on the side of petroleum against coal, irrespective of the convenience with which oil can be handled on tank steamers. This is due to the fact that a ton of oil contains 19,500 thermal units, as against 14,500 in a ton of coal. With this large margin in favor of oil as against coal, it will be seen that the former, even if shipped in barrels, will occupy less cubic space in proportion to efficiency than the latter, and therefore can be shipped at less relative cost.

Commander Edwards confidently predicts a very large export trade in crude petroleum from the California field. He thinks oil can be sent to the Orient and elsewhere and sold in competition not only with coal but also with Russian and Burmah oils. In this connection, he calls attention to the fact that while the price of Texan and Russian crude oil has advanced materially in recent months, there has been very little increase in the cost of the Californian product. The enormous supply available in California, together with the facilities for partial refining, which make it practicable to reduce the percentage of sulphur at very slight cost, combine to increase the practicability and importance of the exportation of fuel oil.

### PETROLEUM PROBLEMS.

**Discussed at Washington by Scientists and Geologists.**

At the 143rd meeting of the Geological Society of Washington, held in the assembly hall of the Cosmos club Wednesday evening, April 22, 1903, a general discussion on the problem of the occurrence and storage of crude petroleum and petroleum products was opened by Dr. David T. Day in a paper entitled, "Experiments on the Diffusion of Crude Petroleum through Fuller's Earth."

Dr. Day reviewed a series of experiments which he has been carrying on intermittently within the last five years on the changes which take place in crude oils by diffusion through various porous substances.

It was found that if crude petroleum were allowed to pass slowly through pulverized fuller's earth, it became separated by fractional diffusion into a series of oils differing in color and specific gravity from the original product, and representing the comparatively simple oils of which the complex crude petroleum is composed. In color the fractions varied from the dark brown or amber of the crude to the clear white of refined petroleum, and variations in specific gravity from .70 to .85 were secured.

An account was given of a series of experiments conducted by Professor Engler, to determine the nature of the changes which

took place in the oil. Professor Engler's conclusion was that no chemical change whatever took place in the process of diffusion, the differences in the resulting products being entirely physical.

Experiments as to the effectiveness of various diffusion media tended to prove that the best results are invariably attained by the use of fuller's earth. Quartz sand and amorphous silica exhibit practically no selective action. Powdered limestone was equally ineffective. Different clays show greatly differing capacity for separating the petroleum oils, the greatest effectiveness being secured as the clay approaches fuller's earth in composition and texture.

Interesting practical and scientific suggestions made by Dr. Day as a result of his experiments were, first, that the great variety in color, specific gravity, viscosity, etc., of the different Pennsylvania oils may be due to differences in amount of diffusion suffered by these oils in passing upward through carboniferous shales from a common source, rather than to differences in original composition; and a corollary of this suggestion is that these oils and those of the Trenton district in western Ohio may have an identical original source far down in the geologic column, the present differences being due to the greater diffusion suffered by the Pennsylvania oils in passing upward through the intervening strata to the horizons in which they are now found.

An examination of the Texas oils shows that they contain considerable amounts of constituents which are most easily removed by diffusion, the conclusion being, therefore, that they are nearer the original source than the Ohio and Pennsylvania oils.

At the conclusion of Dr. Day's paper a number of geologists, among them Messrs. Hill, Eldridge, Hayes, Adams, Butts and Fuller, discussed various phases of the problem of the origin and storage of the fluid and gaseous hydrocarbons, the suggestions of Dr. Day as to the competency of fractional distillation by diffusion to account for the present differences in native oils, and the further suggestions of a common origin for many of them being regarded as of particular interest.

W. C. MENDENHALL,  
Secretary.

### Will Oil Streets.

A special meeting of the Long Beach City Council was held July 1 for the purpose of opening bids on furnishing 2000 and 4000 barrels of oil and sprinkling the streets. There were five bidders, the prices ranging from \$1.34 to \$1.75 a barrel, spread on the ground. C. E. Lapp was the lowest bidder and the contract was awarded to him, work to commence at once.

Two large oil sprinklers have been obtained to oil a long stretch of road between Rumsey and Tancied, in Colusa county.



# PACIFIC OIL REPORTER'S

## OIL LAND DEPARTMENT

**Is the only Agency on the Coast Handling  
Oil Lands Exclusively**

For a long time the PACIFIC OIL REPORTER has realized the need of an agency on the Coast to handle oil properties exclusively. Time and again this office has been importuned by parties desiring to secure firstclass oil lands to recommend or secure contracts of purchase of lands that were known to be absolutely safe for development. To all such we were obliged to reply that we were not in the land business. Often these buyers would not consent to deal with the outside agents to whom these inquirers were turned over. In order to serve our friends and patrons, both buyers and sellers, this department has been established. The wisdom of this move has already been amply demonstrated. We feel highly complimented at the evidences of confidence that the investing public has already shown in the REPORTER'S land department. Owners of high grade oil lands in all sections of California, as well as Utah and Wyoming, recognize our land department as a legitimate and trustworthy medium through which they can be brought into touch with the investing public. Both classes have instantly recognized the unsurpassed facilities which this department affords. We have no competition. We are the only agency of the kind on the Coast. We can therefore afford to discriminate. This we do. We will not, under any consideration, handle questionable propositions. The policy which the PACIFIC OIL REPORTER has strictly adhered to heretofore in its editorial and news columns will be even more strictly followed, if possible, in handling the business of this department. Properties which will not stand the closest investigation will not be handled at any price. Stock jobbing schemers and fakirs we have no time for. This they know already, consequently our patronage comes from the legitimate dealer.

### TO THE BUYER.

To those who desire to purchase oil lands, either as an investment or for development purposes, we have something of special interest. At present the Coalinga field is coming to the front as no other district in the

state, and offers greater inducements to the investor than any other district that we know anything about. We have listed with us the very cream of the field. We have for sale the only available property in the "gusher" territory. Section 6, 20-15, is without doubt the choicest oil land in the state, if not in the United States. We have the agency for the fee owners of this entire section. There are seven producing wells on the section, including the two great Esperanza gushers. The price at which this land can be bought is ridiculously low compared to its real value. We have over 2,000 acres of land in the proven territory of this field at prices way below the ruling prices in other proven districts in the state. We also have some very choice proven territory in the Kern River, Sunset and Midway fields, in Kern county, as well as in Lompoc district in Santa Barbara county.

We are the exclusive Pacific Coast agency of the Evanston, Wyoming, Oil Exchange, and have the very choicest lands in the great Uinta district listed with us. In addition to this great list we have more than 8,000 acres in the new Salt Lake fields, in Utah, offered to us, and we are now investigating this field, with a view to listing this great tract. This will give you an idea of what we have to offer, and every day is adding to the list.

### TO LAND OWNERS.

A glance at our listings is enough to convince any one that we have the confidence of oil men everywhere. Our facilities for handling oil lands are unequalled. We know a thing or two about oil lands ourselves, and when we are satisfied that a property is all right our endorsement carries weight. Consequently the discriminating investor seeks our endorsement.

We do no hawking about the streets. We boom no particular tracts. We have no pet schemes. We are unhampered. If your land can be sold on its merits we can handle it. Otherwise we don't want it. Send us a full description of your property, and we will tell you whether we think we can handle it or not.

. . . . ADDRESS . . . .

**LAND DEPARTMENT, PACIFIC OIL REPORTER**

**U. M. THOMAS, Manager**

**318 PINE STREET**

**SAN FRANCISCO, CAL.**



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Address all communications to the Company at its Home Office.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, July 8th:

CALIFORNIA STANDARD.			
200 at	13.....	\$ 26 00	
CARIBOU.			
100 at	90.....	90 00	
HOME OIL.			
100 at	2 95 (C).....	295 00	
200 at	2 95.....	590 00	
500 at	3 00.....	1,500 00	
100 at	3 00 (B 30).....	300 00	
500 at	3 00 (B 10).....	1,500 00	
JUNCTION.			
300 at	22.....	66 00	
KERN.			
250 at	5 50.....	1,375 00	
OCCIDENTAL OIL.			
800 at	20.....	160 00	
OIL CITY PETROLEUM.			
500 at	31.....	155 00	
REED CRUDE.			
100 at	38.....	38 00	
SENATOR.			
150 at	70.....	105 00	
SOVEREIGN.			
1,500 at	37.....	555 00	
100 at	36.....	36 00	
TWENTY-EIGHT.			
6 at	3 50.....	21 00	
5,406 Shares		Amount \$6,812.00	
CYPRESS LAWN.			
5 at	6 25.....	31 25	
5 Shares		Amount, \$31.25	

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		1.50
Apollo.....	.46	
Asso. Oil Co Stk. Tr.		
Certificates.....	.23	.24
Aztec.....	.75	
Bay City.....		.15
Bear Flag.....		.15
California Standard.....		.13
Caribou.....		.95
Central Point Con.....		.85
Chicago Crude.....	.21	.24
Clairemont.....		.35
Esperanza.....	1.00	
Fauna.....		.04
Four.....	.70	.72
Fulton.....	2.80	
Giant.....	.19	.30
Hanford.....	115.00	
Home.....	2.95	3.00
Homestake.....	2.50	
Imperial.....		
Independence.....	.16	
Junction.....	.22	
Kern.....	5.25	5.50
Kern River.....	12.00	
Lion.....	.06	.07
Monarch of Arizona.....	.52	.56
Maricopa.....	.10	

McKittrick.....	.13	
Monte Cristo.....	1.00	
Nevada.....	.30	
Occidental of West Va	.20	.21
Oil City Petroleum.....	.31	
Peerless.....	14.50	
Petroleum Center.....	.05	
Pittsburg.....	.40	
Piedmont.....	.06	.10
Reed Crude.....	.38	.40
S. F. & McKittrick.....		2.75
San Joaquin O. & D.....	5.50	
Senator.....	.61	.80
Shamrock.....	.15	.22
Sovereign.....	.36	.38
Sterling.....	2.95	3.00
Superior.....	.04	.06
Thirty-three.....	7.75	8.00
Toltec.....		.25
Twenty-eight.....	4.00	4.10
Union.....		64.00
United Petroleum.....		118.00
West Shore.....	2.80	
Western Petroleum.....		.13
Wolverine.....		.57

OFFICE OF

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Heavy teaming and draying a specialty. Firstclass single and double turnouts at reasonable rates.

COALINGA, CAL.

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By Chemist and Oil Refiner (young and up-to-date) position as Superintendent or Assistant uperintendent in petroleum oil refinery. First-class references.

Apply "PETROL"  
Pacific Oil Reporter

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TELEPHONE MAIN 1552.



ALL THE WAY  
CHICAGO  
In 3 Days

Trains leave Union Ferry Depot, San Francisco, as follows:

7:30	A. M.—BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.
9:30	A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11:10 p. m.
9:30	A. M.—VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
4:00	P. M.—STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
8:00	P. M.—OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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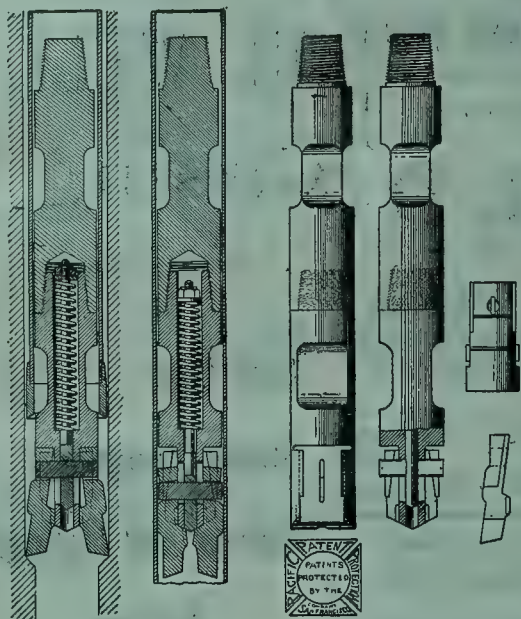
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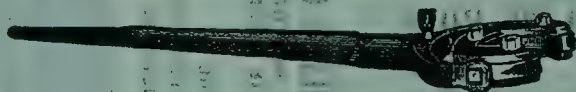
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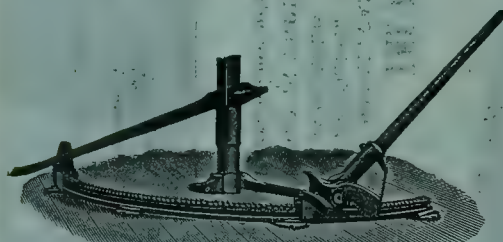


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# PACIFIC OIL REPORTER

VOL. 4. No. 37.

SAN FRANCISCO, CAL., SATURDAY, JULY 18, 1903.

PRICE, TEN CENTS.

## A SPECIAL EDITION.

**The Pacific Oil Reporter Will Signalize the Arrival of the Oil.**

**A Special Edition Will be Published in Honor of an Event Which Marks an Important Epoch in the Oil History of California.**

On Saturday last the editor of the PACIFIC OIL REPORTER was at Point Richmond, accompanied by the photographer of this paper, for the purpose of photographing all the principal points at Richmond and about the Point. Mr. H. A. Johnston, the real estate man, and president of the Richmond Promotion Club, acted as guide and was careful that no point of advantage was overlooked or omitted from the list of photographs taken and information obtained.

Richmond is destined to be a great bustling city, and oil will be the beginning and foundation of its greatness.

It will be the purpose of the PACIFIC OIL REPORTER, in its next issue, to show the substantial reasons that exist for believing in the future greatness of Richmond as a manufacturing and shipping center, second to none on the Coast.

While at Richmond, the editor met a large number of its representative business men, who have every faith in the future of their thriving city.

In speaking of the forthcoming special Point Richmond edition, Mr. Lyman Naugle, editor of the Point Richmond "Daily Record," writes as follows:

W. B. Winn, editor of the PACIFIC OIL REPORTER, is in town today taking views of the big oil refinery and of the town on both the East and West sides. Upon the arrival of oil here in the Standard's pipe line, he will issue a special edition of the OIL REPORTER, devoted to Point Richmond. Mr. Winn says the people of the State do not realize the far-reaching importance of the pipe line enterprise, and especially the tremendous commercial advantage accruing to Point Richmond therefrom. He expects to see a large manufacturing city grow up here.

The PACIFIC OIL REPORTER is the leading exponent of the oil industry on the Coast, and the advertising benefits to be derived from the forthcoming Point Richmond number will be very great. It will reach to the hives of manufacturing industry everywhere.

Concerning the pipe line the "Record" learns from Mr. Winn that the tanks as far north as Tracy are already full of oil and

the fluid is fast being forced toward Point Richmond from Tracy. It is expected that the oil will reach here before August 1. Tracy is less than 70 miles from here. The Standard people are going to build one more pumping station

In spite of the fact that a great many newspapers, some of whom ought to have known better, have published statements to the effect that the Bakersfield pipe-line was a failure, that the oil could not be

—in spite of these statements the Standard Oil people have gone right along, and Pipe-line Manager John Page and Engineer Towle have succeeded so well that the announcement is made as this paper goes to press on Thursday that the oil will arrive at the tanks at the Standard Oil refinery at Point Richmond early next week; probably on Monday, but certainly on Tuesday or Wednesday.

The oil as it first arrives will probably be a mixture of Kern River and Coalinga oil, both these oils having been put into the line at Mendota, where the branch Coalinga line meets the main Bakersfield line.

The Kern River Oil is of about 16° gravity, while the Coalinga oil will average a little better than 20°. The result of the mixture is an oil of about 18° gravity, which flows freely and easily, and runs through the pipe very rapidly.

It may be that an extra pumping station will have to be put in between the stations south of Mendota, in order to force the heavy Kern River oil through the pipe.

One such extra station is already being built, and is probably by this time nearly completed. If this extra station proves efficient in sending the oil through the first section of pipe more rapidly than at present other pumping stations may be established.

Anyhow the success and practicability of the pipe line is now established by the arrival of the oil at Point Richmond, and the truth of the old adage is demonstrated that "Nothing succeeds like success."

The PACIFIC OIL REPORTER and oil men generally congratulate Chief Engineer Towle and Pipe-line Manager Page on the success that has crowned their long and arduous, and what seemed to some an impossible task.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

## WILL REACH HERE MONDAY.

**The Oil in the Pipe-Line will Soon Reach the Refinery.**

**It is Now Almost at the End of the Line and will Flow Into the Richmond Tanks Early Next Week, Probably on Monday.**

## POINT RICHMOND

On July 25, the PACIFIC OIL REPORTER will issue a special

### POINT RICHMOND EDITION

to signalize the arrival of the oil through the Bakersfield pipe line into the refinery at Point Richmond.

We believe the success that has attended this pipe line enterprise deserves special mention, and we also believe that the arrival of the oil at Point Richmond marks an important epoch in the history of Richmond, which is destined soon to become one of the greatest, if not

### The Greatest Manufacturing and Shipping Point on the Pacific Coast.

The edition will contain a large number of photographs of the Standard refinery and all the important points about Richmond and vicinity.

An edition of 20,000 copies will be issued.

Orders for advertising and extra copies should be sent in at once.

ten miles north of Bakersfield. This will be done as an experiment to see how much they can facilitate the speedy flow of the oil. Should the experiment justify others may be built.

made to run through the pipe, and that it would never arrive at Point Richmond unless pumping stations were established double in number to those already constructed



## FORMATION OF PETROLEUM.

### Theory Discredited that Petroleum Comes from Dead Animals.

#### Nature and Its Creative Power Produces Geological Phenomena; and Unknown Forces are Creating the Stores of Liquid Fuel.

If there is any one question upon which scientists disagree it is upon the origin of petroleum. The more boisterous of these scientists, especially the chemists, explain this to be of animal origin and are in doubt only as to their transposition products, and disagree only in regard to the higher or lower order or kind. On the other hand, others work and investigate more quietly and especially regard the situations which were possible within our petroleum strata in order to trace back the questioned origin to a purely inorganic formation. Both parties rely on experiments upon a small scale, which are perhaps effected to a greater or less extent in laboratories. In the first place, they work without regard to the geological possibilities of the experiment and thus perpetuate the mistakes which greatly multiply the results obtained. At the same time they establish an hypothesis thereupon to which the creation of the world must accommodate itself, regardless of its endless number of different forces, and to which nature must conform.

A critical examination of these different hypotheses and the results presented by them may be appropriate, as the points in question are important and practical, namely, that upon the important knowledge of the existence and extent of our petroleum deposits in the interior of the earth's strata and that of forming conclusions of the proportion, and the appearance, which could serve as a guide to its further successful determination. But that the technical deep driller has contributed to the solution of these important points in question and by his disclosures has furnished the foundation for understanding the earth's strata and position is unquestioned, and therefore, says Naphtha, he will be expected to contribute to our knowledge.

Of what importance is the scientific controversy as to whether the petroleum in its present abode may be considered as a decomposition or a transformation product of dead animal or other organisms in comparison with the question of the retention of the actual petroleum deposits in the interior of our earth strata and the conclusions based thereupon as to the analogical retention and appear-

ance in other places for the purpose of searching for and discovering new deposits? But since important scientific names belong to the representatives of the theory of animal origin a certain amount of attention must be devoted to the question, even though it be regarded as erroneous, in order to conclusively clear up this possibility. Nevertheless these may properly be considered as explained by the results of new experiments; as, in the first place, Mendelejew was able to explain it in his laboratory in a purely inorganic manner, likewise many other chemists strove for the explanation in the same way; also Byasson, Ross, Moissan, etc., and the same results were attained perfectly and apparently in a convincing manner in all respects by the Russian chemists, Sabatier and Sendernes.

On the other hand, logic and geology were cited for the solution of this question. We will therefore examine upon which basis to state the supposition of previous development of the claimed organic petroleum formation theory, and for this purpose will follow closely the most prominent representatives. In the first place, there is Dr. Von Cotta, director of the Bergakademie in Freiberg, one of the most renowned men in the world. He says:

"The entire incident of their origin (the petroleum beds) from organic remains may be likened to a grand distillation process in which the under strata represent the retort and the upper strata the receiver, while the heat of the earth assumes the role of the furnace. Above all, it originates gaseous carbureted hydrogen combinations; these turn to oil in the upper and colder regions and then through oxydation they turn to asphalt or to earth wax (ozokerit) under especial conditions, namely, by the loss of a part of the hydrogen."

The learned professor of mineralogy at Tubingen, speaks as follows:

"The fat and resin of the primitive creatures do not appear to have absorbed the substances of our mother earth unmeaningly for the cultivation of mankind. The pious old geologist had formed that conclusion. They looked

upon it as the last remains of the time of paradise, when everything abounded in fat."

This, as a scientific explanation of a natural occurrence, is not worth further consideration.

Finally a short sketch of the position of the petroleum beds may follow in order to find out their extent, and particularly their location. These beds are bound up in the small mountain formations and appear from the oldest gray wacke to the tertiary sand in the faults, fissures, crevices, and even in the pores and spaces between the strata, for the most part along the mountain elevations, thereby filling up the strata faults and standing under considerable pressure. It is not thereby precluded that the pressure is exercised by the water stratum above it, since, by approaching a newly drilled petroleum well after the final settling of the water in the bore hole, one finds that the strength of the oil gas breaks out forcibly, since at this place a free passage is opened to the air while the mass of water upon the entire upper surface presses hard. This pressure increases with the depth.

But the quantity of petroleum is so great that all the dead animals of the world through their transportation are not sufficient to form such phenomenal quantities, even if their remains had not become

petrified and had not been consumed, while the inorganic base substance is ready in any desired quantity for transformation and combination into the proper forms. On the other hand, the transformation of the individual animal carcass is not sufficient for such geological incidents and occurrences and there are not suitable conditions in the interior of the earth for carrying through a process transforming all the carcasses at once. Therefore, we can claim that nature and its creative power is producing geological phenomena, and then we assume that unrestricted forces unknown to man may be, and are creating and producing petroleum formation directly from inorganic base substances without their transformation to organic forms and their transformation to inorganic matter.

#### Another New Tanker.

The steamship "Ligonier" has just completed her initial voyage. She is the last addition to the J. M. Guffey fleet and it is rated as the best exclusive oil trading vessel afloat. The vessel was designed especially and exclusively for the Port Arthur oil trade. She has a capacity of 1,571,500 gallons of bulk oil, and in addition to this can carry a great quantity of barreled oil. She is rated by the Lloyds 100 A1 (with a Maltese cross in front of the figures) which is of course the highest rating.

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### An American on Baku.

A correspondent, whose name is not given, has been writing on the Baku fields to a well-known American contractor. The letter is indited in a typical American style, and is interesting reading, although we cannot quote here at any length. The general impression produced in this gentleman by the methods used in Baku is not at all favorable. His idea appears to be that they are slow and antiquated, though he admits that the strata are very difficult to deal with. The ignorance of the Baku oil drillers also fills him with fine

scraper to near Rockwood on the Allegheny, to put in a switch. On their arrival there they found notices put up stating that glycerine had been planted on the site of the proposed siding and that if the work was undertaken it would be at the risk of the lives of the men and the destruction of the company property. It seems that an Oil City man had leased the land on which the switch was to be built for oil purposes and did not propose to allow the work being done without consulting him. After a settlement was made, four cans, each containing

officers approached he took his grip by the handles and threatened to strike the first man who touched him, with the bag. It is needless to say the arrest was not made and that the passengers, when they learned what was going on, almost broke their necks getting out of the car. The case at Rockwood, however, is a new one and such action has never before been taken. It is not improbable that the idea will be used in similar cases hereafter. — Titusville Courier.

### Alcohol vs. Petroleum.

In view of the attempts made

12,000,000 tons are received in the form of refined oil. The weight of 24,30,000,000 hectolitres of alcohol being 2 2½,000,000 tons, it follows that the relation of the petroleum production to that of alcohol is 12 to 2-2½. Moreover, the largest part of the alcohol produced is consumed for dietetic purposes, and therefore cannot come into competition with petroleum, while the quantity that can be offered as a substitute for petroleum does not exceed 500,000 tons.

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Some of the wells of the Peerless Oil Company in Kern River District.

scorn, and he remarks that "what they have not learned in 20 years would make a book," while the writer's own position is summed up in his comment on the casing used. "I believe," he says, "that water-tight casing would be much better, but every time I form an opinion I change it next day for a seemingly good reason."—Petroleum Review.

### Chased With Explosives.

On Monday of this week, the Pennsylvania Railroad people sent a crew of men and the big steam

six quarts of the high explosive, were unearthed and moved away. There was enough of the stuff in sight to have blown the men, train and everything near out of existence. In years gone by, when only small shots were used to torpedo wells, the shooters carried the stuff in old fashioned oil cloth valises, frequently boarding trains loaded with hundreds of passengers, and riding to their destinations. On one occasion an attempt was made to arrest one of the men who had eight quarts of glycerine with him. When the

in various countries to set up alcohol as a competitor both for illuminating and power purposes, it is interesting to note a few facts as to the relative position of the two industries. According to the German "Zeitschrift fuer Spiritus Industrie," the production of alcohol in Europe and the United States amounts to 20,000,000 hectolitres, and for the whole world 24,000,000 to 30,000,000 hectolitres. The total petroleum production of the world is estimated in round figures at 20,000,000 tons of crude oil per annum. Of these 20,000,000 tons,

### A Sour Lake Fortune.

Some interesting information reaches us with regard to a fortune which has been made by a Mr. Cannon out of the Sour Lake field. About sixteen years ago Mr. Cannon bought a tract of land at Sour Lake for \$40. Two months ago he cut up the property into areas of one-sixteenth of an acre each, and these sold readily at about \$2,500 each, while a fortnight ago he sold one acre for \$50,000 cash. Up to the present, Mr. Cannon has roughly made \$315,000 out of his little transaction.

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## OIL FROM WORMS.

### A New and Startling Discovery in the Realm of Science.

There are occasions when men who devote their lives to ascertaining the laws of nature run up against conditions which are apparently inexplicable, and where the man with a guess, a hunch, or merely a profound ignorance, plunges ahead and succeeds.

In practical geology there has been no problem of recent years which has caused more perplexity than the occurrence of oil beneath the Coast Prairie Region of Texas and Louisiana. Able students have collected data there and attempted to interpret the phenomena, and I believe, as a rule, that the abler the student the more cautious has he been in reaching conclusions. Captain A. F. Lucas, who first brought in the wonderful oil gushers at Beaumont, was a scientific man, and his happy practical result was largely due to his careful observations and deductions from natural phenomena. Since its discovery the attempts to extend the productive oil area have presented the most fruitful field for charlatanism the world has ever seen, and all kinds of quacks and humbugs have been consulted and remunerated. The man with the electric oil finding machine, the fellow with a switch, the boy who could see currents underground at night, and a swarm of quack geologists have found abundant capital ready to believe that science is a humbug and to back their peculiar methods with dollars.

Meanwhile, as time rolled by, the famous gushers of Spindletop ceased to gush and the money of innocent investors likewise ceased to flow into the pockets of hundreds of company organizers who have thrived parasitically upon the success of the legitimate business men in the region. Not only had the gushers ceased to gush, but hot water instead of oil in places was filling the tanks, and Spindletop, in the language of the people, looked like "a dead one." At this moment, least propitious for such an undertaking, there appeared a beautiful quarto volume in crimson binding announcing the organization of the Standard Oil company, with a capital of \$50,000,000. As a work of typographic art the publication is a model one, and the letter press, plates, maps and geologic sections are such as would naturally make our good farmer friends, who supply most of the sinews of war for such companies, send in their dollars without delay.

The assertions in the text, however, were so amusing that they read like jokes to a scientific man. In order that some of these choice literary gems may not be entirely

lost, I append a few extracts:

"This is to certify that I, \_\_\_\_\_, of Beaumont, Texas, have made a careful and scientific study of the geological formations of Texas and Louisiana. I have paid strict attention to oil, sulphur and iron ore, and I believe that I thoroughly understand the philosophy of minerals."

"I have come to the conclusion that those geologists and other learned men know but little or nothing about the origin and location of oil. None of the oil fields have ever been discovered by these learned men until some one brought in a gusher. Their scientific knowledge helps them to locate an oil field when a gusher is brought in. From what I can learn about the geologists and learned men, they have been stumbling blocks in the way of all the oil fields that have been developed, and they deserve no credit for the same. I think that their scientific knowledge is rather shallow. They were no stumbling blocks to me to turn me against the art of science, but they kept me from raising money for developing purposes."

"I believe that the animal oil is derived from certain kind of animals that were imbedded in the lower strata while they were forming in the oceanic period.

brought in a 2,000-barrel gusher in the played out Spindletop field. We tip our hats to this magnificent example of American nerve, pluck and faith which knew not fear and developed wealth in spite of scientific law and previous failure.—Engineering and Mining Review.

### THE FULTON.

#### The Last Report to Stockholders Very Encouraging.

Following is the report of President John M. Wright, of the Fulton Oil company, to the stockholders:

Well No. 3 reached the oil sand on the night of July 3rd, since which time it has flowed considerably more than 100 barrels per day. Nos. 1 and 2 are likewise flowing wells. It is intended, however, not to rely on the natural flow of these wells but to pump them as the wells in Kern River district are pumped.

Our three wells, Nos. 1, 2, and 3, are good for an aggregate production for at least 1,000 barrels of oil per day.

Work is already progressing on Nos. 4 and 5, and No. 6 will be

for the construction of two reservoirs with capacity of 100,000 barrels each.

A contract has been let for the erection of two 70 horse-power boilers as the beginning of a power plant for the operation of the wells.

The Jewett & Blodgett companies are about to construct a pipe-line from Sunset station to and across Fulton land. The Santa Fe Railroad company is about to extend its track from Sunset station north westerly across the land of the Maricopa Oil company, and within a few feet of the land of this company. It is therefore unnecessary for this company to construct pipe-lines of any considerable length, in order to get its product to market.

As indicated in former reports, no difficulty is likely to be experienced in disposing of our product. We shall not make any contracts for the sale of oil however, until our reservoirs and our power plant are completed.

### Important Purchase.

The twenty acres in section 29-28-28 in the Kern River field, known as the Gillis property, has changed hands. It is understood that Dr. C. T. Deane, secretary of the California Petroleum Miners' Association, is one of the purchasers; the price paid has not transpired. This is one of the best pieces of property in the field.

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## SPECIAL SUBSCRIPTION OFFER

During the month of July the subscription price of the Pacific Oil Reporter is reduced from \$2.50 to \$1.50.

This offer is good only for July, and those who propose taking advantage of it should act at once.

The animals were in the form of worms which lived for a certain age and multiplied very rapidly during the upper oceanic formation till they existed in these strata in great masses, the strata at that age being undisturbed by volcanic action. When the volcanic action took place the sulphureted hydrogen gas worked its way into the mass of animals and slew them and their dead bodies turned to oil."

Now here is an interesting sequel: The gentleman who, believed that "geologists and other learned men know but little or nothing about the origin and location of oil," although he himself "thoroughly understood the philosophy of minerals," and who was father of the remarkable theory that "oil was derived from worms imbedded in the lower strata while they were forming in the oceanic period, which, when volcanic action took place, were killed and their dead bodies turned into oil through the action of sulphureted hydrogen gas," and who after Spindletop had practically played out, organized a \$50,000,000 company, despite these facts and in the face of the absurdity of his own opinions, last week

started promptly on the final completion of No. 3.

Many inquiries are made as to the meaning of the expression "heaving sand" and as to its probable effect on the Fulton wells.

All the wells on the west side of Kern valley are found in a narrow strip, varying in width, the oil strata having a considerable dip downward toward the east. The occurrence of the oil strata in this locality may be aptly compared to the occurrence of parallel quartz veins. The oil lying in dipping strata, and being volatile and of great weight, and producing large quantities of gas, it follows that when the casing in any given well reaches the oil, the oil sand is forced up in the casing by gravity as well as by gas pressure. This constitutes an every day difficulty in drilling oil wells in Sunset district but our men have put down the casing promptly through the oil strata in wells 1 and 2, landing it in the underlying "shell" or clay. This accomplished, the "heaving sand" presents no important difficulty in the operation of a well.

Instructions have been given

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## TERRITORY OIL LEASE.

### Devious Route Pursued Before It Becomes a Legal Document.

An oil and gas lease, with the accompanying papers, must travel a tortuous road from the time it leaves the hands of the lessee until its return, finally approved or disapproved, from the office of the secretary of the interior. It must be sent first to the Indian agent at Muskogee. Upon its arrival at his office it is docketed, the proper memoranda are made and it is given to a clerk for examination, who usually finds many minor matters of error and omission. The parties are notified officially, usually by letter, which action is recorded, that they will be allowed to rectify the defects, which may or may not be possible. Next the papers are forwarded, with the agents' report, to the department at Washington, addressed to the secretary of the interior, through the commissioner of Indian affairs, and are mailed to the latter official. In the Indian office the documents are sent by the mailing division to the land and law division, under the charge of Major L. F. Larrabee, and are directly charged to George A. Ward, to whom all matters affecting the lands and laws of the five civilized tribes are charged. Mr. Ward, or one of the clerks, to whom he may assign the case, examines all the papers with care, to see that all requirements have been complied with, and prepares a report to the secretary, for the commissioner's signature. This report, together with that of the agent, and all the papers are mailed to the secretary, who gives to Indian territory matters of importance his special, personal attention. After the secretary has examined the papers far enough to satisfy himself concerning the business end of the case, he sends the papers to the Indian territory division, in charge of Judge Luther R. Smith, with instructions to either approve or disapprove, and Judge Smith, or one of his clerks, prepares a letter to the agent, for the secretary's signature. When this letter is signed, the papers are put into an envelope, addressed to the agent. This in turn is put into another, addressed to the commissioner, and sent to him. His clerks open the package, make a pen copy of the secretary's letter, record the action on the lease, file all the papers except three parts of the lease and the secretary's letter, and forward three parts of the lease and the department's letter and one part of the lease in his files and sends the lessor and lessee each one part.

Necessarily it requires some time for a lease to make the rounds. Every action on every paper must be recorded in each

office, else interminable confusion would result, inasmuch as neither office has the amount of clerical help necessary to the prompt and efficient dispatch of public business. For instance, five clerks must, in the Indian office, handle all the work from the five civilized tribes. Thirty thousand persons, claiming to be Mississippi

doubtful Cherokee-by-blood cases, to say nothing of the yet undecided Creek contested land cases, and the 300 or more contests already filed by the Cherokee nation, with more to hear from, and the reports from the Choctaw and Chickasaws not in.

Oil and gas leases are considered as "current work." They will

LOS ANGELES, CAL. July 14, 1903.

W. B. WINN, Editor PACIFIC OIL REPORTER.

San Francisco, Cal.

DEAR SIR:

We have your favor of July 3rd and have received the extra copies of the special Coalinga edition of the PACIFIC OIL REPORTER.

We consider this edition one of the best issues of your paper that we have yet seen and it is creditable alike to the paper itself and to all the interests represented.

We have read the issue with a great deal of pleasure and profit, and especially commend it for the accuracy of its statements and the vast amount of reliable information contained therein. We congratulate you on your splendid effort.

Yours truly,

NATIONAL SUPPLY CO.

C. B. BARNES,

Manager National Supply Co.

Choctaws, make application for enrollment. Testimony is taken by the Dawes commission in every case. This must be read and a decision rendered by the Indian officer, as well as by the secretary's officer. There are more than 20,000 doubtful freedman cases, several doubtful intermarried white, and several thousand

be approved in large numbers at an early date.

It is not likely that all the leases sent in will be approved. If the secretary follows the usual custom, he will assure himself of the financial ability of the lessee before he consents to approve the lease, and he will want to know something about his past business

history and his experience in and ability to conduct mining operations for oil and gas. It takes time for the agent and his inspection to make these investigations. The forces of these offices are limited and it must be remembered that none of the numerous clerks of the Dawes commission can be used by the agent or the inspector. Those who grow impatient ought to remember that the settlement of oil and gas matters in the Bartlesville oil field is but an incident to the final settlement and adjustment of the greatest probate case the world has ever known. The magnitude of the interests involved and the great variety of questions to be considered necessitate slow and careful work. Bartlesville (T. T.) Examiner.

### In Oregon.

The regular steamship line of Portland, Or., and the Columbia River and Northern Railroad have adopted oil as fuel and will begin its use at once.

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### BOILER . .

and all other kinds of repairing necessary in the

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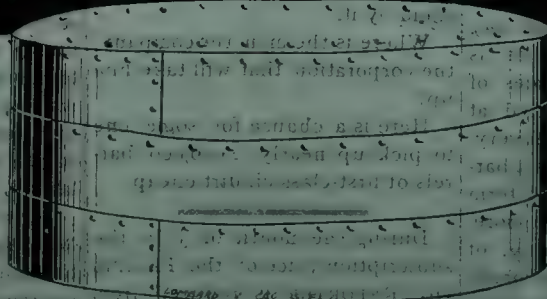
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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

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318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn Street, Chicago.  
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Western News Co., 204-206 Madison Street, Chicago.  
Pittsburg News Co., 97-99 Third Avenue, Pittsburg, Pa.  
Rhode Island News Co., 139 Westminster Street, Providence.

SATURDAY.....JULY 18, 1903

Among the Kern items in last week's issue of the **PACIFIC OIL REPORTER** was the statement that President John M. Wright, of the Fulton Oil company, had offered to contract the output of the wells of the Fulton Oil company in Sunset district to the amount of 1,000 barrels a day for five years at the rate of 30 cents a barrel at the wells.

When Mr. Wright made this statement he undoubtedly meant what he said. He usually does. His offer will stand. It was made in earnest. It was made in public.

This being so we advise some man or corporation to take up Mr. Wright's offer immediately. We do not believe that at the end of two years or even one year it will be possible to obtain any such offer. The price of oil is steadily rising. Several sales of Kern River oil are reported at 30 cents on immediate delivery. If spot oil is worth 30 cents a barrel, certainly oil sold on long term contracts ought to be worth more.

The Peerless Oil company, of which Mr. Wright is also president, is one of the most successful companies in the State. It has sold thousands of barrels of oil at 20 cents a barrel, and has contracted to deliver millions of barrels more to the Standard Oil company at the same figure. The Peerless is declaring monthly dividends, and will continue to declare them undoubtedly for years

to come. It has found 20-cent oil profitable. The books of the company show it. The stockholders have received large dividends from oil sold at this rate, and these dividends are likely to be increased very materially, as the Peerless is now in such shape that it will not have to incur many more heavy expenses in the way of tankage, reservoirs, pipe-lines, etc. This work has been done, and done thoroughly.

But because the Peerless, being very favorably situated, has made money out of 20-cent oil, this is no proof that all companies can do the same. We do not believe that the average company can afford to sell oil at 20 cents. It may pay at the start but not in the long run.

Why should oil be sold at 20 cents when the consumer is willing to pay at least 35 cents for it rather than not have it to burn? It is pretty hard to get only 20 cents for your oil when the railroads are getting 42 cents a barrel for simply transporting it.

The way the use of oil is increasing, and the way the price is slowly advancing it seems to us that the offer of Mr. Wright ought to be taken up at once. If it is taken up it will in a certain sense put a fixed and certain price upon long term sales that will make an epoch in the financial history of California's oil industry.

There is one thing about Mr. Wright's companies that is worthy of praise, and is an element that could well be followed by other oil companies and corporations, large and small. Whatever these companies do is done openly. There is no element of secrecy about it. If they make a contract they are willing to let it be known. There is no covering up, no lying or misrepresentation. They act like men, and not like a lot of boys in a kindergarten class, as a lot of our oil men seem to be.

We think the offer of Mr. Wright to sell his oil—1,000 barrels a day, for five years at 30 cents, is too low. We think his oil is worth more.

But he has made it, and will stand by it.

Where is the man, the company, the corporation that will take him up?

Here is a chance for some one to pick up nearly 2,000,000 barrels of first-class oil dirt cheap.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

A movement has been inaugurated by a number of the prominent citizens of Crowley to raise sufficient funds for the construction of a pipe line from Mamou oil field to Crowley, La. The movement has met with great encouragement and there is little doubt but that the line will be constructed in the near future.

## CHEAP OILED ROADS.

### Economic Advantage of Oil Over Water.

A writer in the Modesto News, in arguing for the use of oil on the streets and roads of that city, has the following:

The oiling of streets in cities is no longer an experiment. The newspapers often contain items, taken from exchanges published in cities where the streets have been oiled, and these items show that the practice results in good streets, comfort in riding and freedom from dust. If successful in other cities, why not Modesto? The dust here is a source of great discomfort to our people; our streets are, in many places, sandy, in all places dusty, even shortly after the sprinkling cart has passed. To tell the truth, the sprinkling carts are poor institutions. After the surface of a street has been sprinkled with water a crust is soon formed. Vehicle wheels grind this crust to a fine powder and in a short time the sprinkled street is a source of greater annoyance from dust, than is a street which has never been sprinkled.

You say that it will cost too much to oil the streets of Modesto? Let us go into that matter. Here are a few figures for comparison: Ex-City Clerk Harter says that it costs Modesto about 5 cents to pump 1,000 gallons of water, more, in fact, when the interest on the investment is taken into consideration. City Clerk Dingley claims that it costs the city nearer 10 than 5 cents to pump 1,000 gallons of water. For the sake of argument, however, let us figure on a basis of 5 cents per 1,000 gallons. The report of City Water Inspector Bortles, for the month of June, shows that 1,534,500 gallons of water were sprinkled on our streets during that month of thirty days. Here we have actual water costing us \$76.73 cents a month. The city has two sprinkling wagons, and it pays \$3 a day each to keep them going. In June this amounted to \$180. At the end of the month the city has paid out \$256.73, and has absolutely nothing in return, as the temporary relief given by the water sprinkling cart is of short duration, and the condition of the streets is worse than ever, a little later.

In a recent issue "California Municipalities," a journal devoted to such matters, stated that the average cost for oiling a mile of street was \$180. From this it will be seen that every month we could, with the money we now pay out for the worse than useless water, oil more than one and one third miles of our streets. Figure the street sprinkling season in Modesto to be of eight months duration, our water bill

for the season for sprinkling, at the figures given for the one month above, would be \$2,053.84, which sum of money, at \$180 per mile, would oil eleven and forty-two hundredths miles of street. And the beauty of it would be that you have something there when the work was done. You would have a smooth, hard, dustless street, and you would not be constantly paying out money for it, as is necessary in the case of water.

O. McHenry, who has had experience in oiling roads at his Bald Eagle ranch, estimates that it would cost this city in the neighborhood of \$12 to oil the length of one block, (300 feet) in Modesto. That estimate may be a trifle low, as our streets are wide, but even double that amount for 300 feet and you have something more lasting, more economical, and vastly more comfortable than water.

Supervisor Coffey, a practical road oiler, gives his opinion that if the streets in Modesto were scraped and the dust taken from their surfaces, that one coat of oil would be all that was necessary, to make a hard, dustless street.

## Rea's Run Development.

The most promising development in this section of oildom is the Rea's Run field on the Ohio side opposite Raven Rock. Efforts have been made in a desultory way for the past ten years to open a field in that section, but all attempts until recently terminated disastrously. Recent operations over there insure quite a respectable Keener pool. The wells are not large, averaging something like 25 barrels, but at these figures the territory can be operated profitably. The field up to date has something like 10 completed wells to its credit, and all are producers with the exception of the Three Joes' gasser on the Chapman farm. The latest wells in over there show a decided increase in initial capacity. The first well to be completed only produced about 15 or 20 barrels a day, while later wells have come in at a rate exceeding 35 barrels daily.—Pleasants County, W. Va., Leader.

## Oil in Michigan.

Activity in oil prospecting is reported from Michigan. What will be known as the Michigan Oil company has just been organized at Niles for the purpose of drilling for oil. The new company has leased about 1,500 acres west of Niles and will commence to drill for oil as soon as the stock is sold. At Three Oaks another company, to be known as the Southwestern Michigan Oil and Prosperity company has just been organized. The company has leased 4,000 acres in the vicinity of Galien.



## CUBAN PETROLEUM.

## What Has Been Accomplished in the Line of Oil Developments.

An official report, drawn up by the U. S. Geological Survey, on the oil deposits of Cuba, contains some interesting data in reference thereto, as follows:

Oil has been reported in every province except that of Puerto Principe, and more or less serious attempts have been made in numerous places to develop suspected deposits. It must be noted, however, that several illegitimate efforts seem to have been made to float companies for the development of Cuban oil properties that never existed. In more than one instance derricks have been erected and holes drilled with great enthusiasm, until all the stock was marketed, when prospecting suddenly ceased.

The work of the English company, the Cuban Mining and Development Company, is then referred to. The bulk of the report consists of the records of the representatives of various companies who have visited the island; among these was the Standard Oil Company's representative, Mr. Horace P. Chamberlain, who saw a dug well 6 feet in diameter and 10 feet deep, on the top of the water, in which was about half-inch of asphalt tar. About 50 feet from this well was another, which was down 210 feet. A showing of oil at three different points is claimed, but not in paying quantities. The drilling machine used was a light portable affair, such as is in vogue in the United States for drilling water wells. Drillers in charge stated that they received \$7 per foot for drilling.

Mr. Lufkin, of the same company, visited a spot near Cardenas in 1898, and found there, at an elevation of 250 feet above sea level, a dozen or more wells drilled between three and four hundred feet deep. These wells, which were then about 15 years old, were said to have produced at first about five barrels per day for some 20 days. The oil did not flow to the top, but was brought to the surface by what they called a baller. The wells were deepened about 50 feet, and it was said that they then produced 2,000 barrels of oil, but this statement was doubted even by those who gave the information.

Mr. Herbert E. Peckham also visited the Alvarez property some time before July 1901, and saw five different wells. The first had been drilled by Alvarez in a search for drinking water. Sr. Alvarez then began drilling for oil and was successful in striking it at 500 feet. This well yielded 100,000 gallons, part of which was refined on the spot, and sold to the people in the neighborhood. Two other wells were afterwards dug,

but without results.

Everybody who has inquired into the subject of oil in Cuba has been referred to the famous naphtha well called San Juan, in the western part of the province of Santa Clara. This deposit of naphtha, which is a little over 200 feet above sea level, was discovered about 1880 by Sr. Manuel Cueto, of Cardenas, and is at present the property of a stock company, of which Sr. Cueto is the chief stockholder.

Several borings, varying in depth from 300 to 974 feet, were made here with percussion drills, and one with a diamond drill. The reasons given for abandoning the work are numerous.

Petroleum was first encountered August 18, 1881, at a depth of about 300 feet. The special characteristics of this naphtha, as described by Salterain, were that "it is colorless, transparent as the clearest water, easily inflammable, and leaves no sensible residue after its complete combustion; its density is 0.754; it boils at a temperature of 85 degrees, dissolves asphaltum and resinous matter, and possesses the characteristics of naphtha." Sr. Cueto reports that before the war this deposit yielded more than 20,000 gallons, which was sold for 50 cents a gallon and used as an illuminant, a drier, and as a substitute for benzine. It has been used with good success in the engine of a steam launch and as the motive power for automobiles.

In July, 1902, the Canadian driller mentioned above visited the Hacienda de Motembo. The Motembo well was also visited by Mr. Lufkin in 1899, and pronounced by him a most interesting and wonderful occurrence. He said that it seemed to him almost incredible that it could be a natural product. It was used at that time to dissolve gum, as a fuel in benzine stoves, and for any purpose for which naphtha is employed. It was claimed then that there was considerable gas escaping from the ground in the vicinity of these wells.

Thirteen deposits of petroleum have, up to date, been located in province of Santiago de Cuba, ten in the Barrio de Guisa, Bayamo, one in the Barrio Puerto Padre, and one in the Barrio de Yeteras, Guantanamo. Nine of these locations have been cancelled, leaving four at present on the provincial registry rolls.

A Spaniard named Sr. Jose Riveras Tremols, whose office is at Oficios 84, Havana, is trying to promote two petroleum deposits, one of 156 and the other of 225 hectares, near Guisa. It is possible that the latter may be one of the locations mentioned above. In connection with samples of oil from these deposits, Sr. Riveras exhibits letter, written May 5,

1898, by a Mr. George H. Walton, with reference to the quality of the liquid. It contains an analysis made by the Independent Refiners' Tank Line Company of Petroleum Oils of Chicago, which states that this oil is of an amber color, with a gravity of 58°C.; that it stands a fire test of 125; contains 50 per cent of white oil, the color of water, which stands a fire test of 140; that it has a very small percentage of benzine, no gasoline, an extremely small residuum and shows a loss of two and a half per cent.

## Tank Cars on Fire.

A train of twenty cars on the Burlington railroad, mostly oil tanks of the newest and largest type, caught fire in some manner yet unexplained near Whitehall, Ill., June 28th, and in a remarkably short time all but three of the cars had been burned or blown up. The engine and a couple of stock cars were cut out in time to save them, but no one dared to approach the burning oil cars, as explosions occurred with frequency and eye witnesses say the great tanks went shooting up like giant sky-rockets, producing a stupendous spectacle.

## Recent Patent.

The following recently granted patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

- Casing or tubing elevator, Kenton Chickering, Oil City, Pa.; No. 730,233.
- Casing water packer, Charles Haas, Austin, Tex.; No. 730,257.
- Well boring machine, Andrew Kopperud, Milwaukee, Wis.; No. 730,272.
- Well drilling machine, Charles Butterfield, Haxtum, Colo.; No. 730,340.
- Union cable and drill tool socket, Edwin Strickland, Los Angeles, Cal.; No. 730,414.
- Same party, Underreamer, No. 730,415.
- Apparatus for removing drill tools from wells, F. G. Irvine and J. B. Braden, Salem, W. Va.; No. 730,460.
- Clamp for removing tubing, J. H. Smith, Meadville, Pa.; No. 730,486.
- Casing head, M. J. Kirschner, Oil City, Pa.; No. 730,664.
- Drill tool, Thomas Murphy, Allegheny, Pa.; No. 730,786.
- Apparatus for bailing oil wells, H. B. Martin, Buffalo, N. Y.; No. 730,940.
- Derrick, J. C. Knupp, Chaffee, Pa.; No. 731,109.
- Method of well construction, M. D. Rochford, Los Angeles, Cal.; No. 731,130.
- Packing box for pump rods, Warren Berryman, St. Marys, Ohio; No. 731,156.
- Well lining, J. W. Beaumont, Los Angeles, Cal.; No. 731,742.
- Well drilling machine, D. B. Martin, Rittman, Ohio; No. 732,206.

Within the next two or three weeks active drilling for oil in eastern Nebraska will be begun. The work will be taken up by the Omaha Gas, Petroleum and Coal Company, and two wells will be sunk for the present, one at Louisville, in Cass county, and the other in Sarpy county. This was decided upon as the result of a trip made to Louisville by forty-five stockholders of the company.

## PETROLEUM CENSUS.

The U. S. Census Office to Prepare Petroleum Report.

The United States Census Office, which on the 1st instance, became a part of the new department of commerce and labor, is preparing to publish a special report upon the petroleum and natural gas wells of the United States. The act establishing the permanent census office, which was approved March 6, 1902, requires the director of the census "to prepare a report on mines, mining, quarries and minerals, and the production and value thereof," and the director has therefore undertaken this work as an important supplement to the reports heretofore published, which were confined to manufacturing industries and which did not deal specifically with raw materials.

The report on petroleum and natural gas wells, the statistics for which are now being gathered, is designed to cover the business of the calendar year 1902 and will therefore supply figures of much later date than those furnished by the census office in connection with the report on petroleum refining which covered the period of the calendar year 1899. A special effort will be made to avoid duplicating the work of the report on the refining industry and the data presented will deal with the business of producing crude oil and gas exclusively. The statistics presented in the report on refining were designed to embrace the operations of every establishment in the United States engaged solely in refining crude petroleum, and establishments which purchase, refine, or partly refine oils and mix or compound them with vegetable, animal or other mineral oils for specific purposes were not considered in that report.

In order that the report may be as complete as possible the census office has secured the co-operation of the United States Geological Survey, which maintains a list of crude oil producers in all parts of the country. While, as above stated, this report will not duplicate the statistics gathered concerning the petroleum refining industry, the data will, nevertheless, be of great interest to refiners, especially as the period covered is three years later than that embraced in the report of refining.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

The price of oil at Beaumont is down to about 60 cents. The decline is said to be due to oil brokers who are very active now. The lower price is stimulating a demand, as the price had reached what was regarded as a prohibitive point to many fuel users.



## PETROLEUM PRODUCTS.

The Number is Large and Constantly Increasing.

In the early days of petroleum refining it was discovered that in the crude petroleum there were a variety of substances besides kerosene awaiting only isolation from the compounds with which they were mixed. Of fluids more volatile than kerosene, there was a whole group of naphthas; of subjects less easily brought to a boil, there was such products as paraffine, paraffine oil, vaseline, a wide variety of other lubricating oils, and a number of sorts of pitch. Some of these were to be had simply by condensing and saving the vapors given off by distillation, at different degrees of heat; some were available only after special processes supplementary to distillation had been carried out. In almost all cases, the product, once separated from other components of the petroleum or its distillates, needed to be carefully refined.

Little time passed before kerosene ceased to be the only material for which crude oil was treated by water, acid, alkali and fire. The chemistry of the substances was fairly well known before the discovery of the great Pennsylvania fields in 1861. A substance very much like petroleum had been distilled in the late forties from the bituminous cannel found in parts of Scotland. From the heavy fluid obtained by heating this shale to about 800° Fahrenheit and condensing the vapors resulting, the Scotch manufacturers were making an illuminating oil already in 1848. For nearly forty years the competition has proceeded, though ever, to be sure, with growing proof that the British coal oil, despite economies of manufacture and ingenuities of invention, was no commercial match for the rock oil of the Americans. Partly in Scotland, partly in America, there has been worked out a system of the utilization of the by-products for which, in brilliance and completeness, there are few parallels in the whole history of manufacturing technique.

The products other than kerosene finally derived from petroleum show wide divergencies in both their physical characteristics and the uses to which they can be put. Some of them are so volatile that at ordinary temperatures they take the gaseous form; others cannot be separated from the mother liquid short of a red heat. Certain of the commodities are solid; the majority, however, are fluids, though here again there is a wide range of difference in point of specific gravity. In a broad way they may be grouped as products obtained before and after the distillation of kerosene.

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## Success of Oil Pipe-Line.

It is authoritatively announced that the Standard Oil pipe-line will begin delivering the Kern output at Point Richmond on Monday next at the rate of 10,000 barrels per day. During the period that the company has been getting the line into working order the "knockers" have been industriously decrying the enterprise as a gigantic failure and predicting that a flow of crude petroleum would never reach Richmond through it. These prognosticators of evil are evidently doomed to be grievously disappointed. Happily, the success of the enterprise is now assured. To increase its capacity it is surmised that it may be necessary to erect four additional pumping stations. That will, of course, increase the investment in the plant somewhat and add a trifle to the cost of operation, but ample compensation will doubtless be obtained through the improvement in results.

Without considering the quantity of oil carried in the pumping station tanks, this pipe-line holds about 100,000 barrels of oil. Practically, the pipe represents a storage tank of that capacity. Now that its operation is assured, the corporation controlling it will be able to carry out its plans, for which it has made such extensive preparations at Point Richmond. Having discovered a method of refining an illuminating oil from the product of the Kern county fields the usefulness of the plant is broadened as well as the market for the crude product of the wells. Everything extracted in the process of refining will be utilized. Coke-making is to be one of the specialties of the manufactory. There is a good market for this product in the smelting establishments of the State. That industry will doubtless be greatly benefited by the new development. The demands for crude oil are increasing in all directions, and, as a result, exploration of new fields and the boring of new wells in productive territory are being stimulated to an extraordinary degree.—S. F. Chronicle.

## Steamers Burning Oil.

Permits have been granted by the United States Inspector of Steam Boilers at San Francisco to use oil on the following steam vessels:

NAME.	TONNAGE.
Sea King.....	181
Sea Prince.....	58
Sea Rover.....	80
Rescue.....	172
Mariposa.....	3,158
Alameda.....	3,158
Enterprise.....	2,675
Newark.....	1,783
Encinal.....	2,014
Berkeley.....	1,945
Oakland.....	1,672
Transit.....	1,509
Solano.....	3,549
Thoroughfare.....	1,012
El Capitan.....	982
St. Helena.....	205
Piedmont.....	1,854
Richmond.....	135

San Pablo.....	1,584
Warrior.....	122
Falcon.....	117
Hermosa.....	454
George Loomis.....	691
Tamalpais.....	1,554
Pasadena.....	300
Olympic.....	450
Brunswick.....	450
Santa Monica.....	497
G. C. Lindauer.....	459
Alliance.....	679
South Bay.....	600
Albion River.....	450
Prentiss.....	450
Wizard.....	139
Hercules.....	96
A. C. Freese.....	205
General Frisbie.....	544
T. C. Walker.....	786
J. D. Peters.....	884
Mary Garratt.....	810
H. J. Corcoran.....	682
H. E. Wright.....	562
Brooklyn.....	674
Garden City.....	1,080
Valletta.....	419
Apache.....	938
Modoc.....	929
Monticello.....	226
Centralia.....	800
Nevadan.....	4,408
Nebraskan.....	4,408
St. Vallier.....	60
Comet.....	50
Charles Counselman.....	123
Fulton.....	386
Priscilla.....	51
Vulcan.....	327
Elkkader.....	31
Iralda.....	90
Hannah.....	1,211
Eureka of Seattle.....	3,975
Flora.....	185
Jacinto.....	235
San Joaquin No. 2.....	242
San Joaquin No. 3.....	320
Doer.....	365
Varina.....	244
A. H. Payson.....	230
Alton.....	150
Hazel.....	106
Red Bluff.....	80
Arctic.....	246
Dispatch.....	392
Del Norte.....	698
Cazadero.....	450
President.....	1,500
Marshfield.....	564
Sarah.....	388
Billa.....	1,211
Louise.....	370
Susie.....	717
Leah.....	1,211
Columbia.....	477
Geo. W. Elder.....	1,721
Iagua.....	712
Napa City.....	712
Alcatraz.....	255
Eagle.....	2
Asuncion.....	2196
Eureka.....	484
Searchlight.....	100
Tiger.....	250
No Wonder.....	269
Herman.....	456
Charles R. Spencer.....	474
Redondo.....	679
Kehani.....	118
Del Norte.....	450
Rosecrans.....	2,700
Dallas City.....	446
Neponset.....	224
Regulator.....	508
San Pedro.....	452
Aberdeen.....	566
Chehalis.....	663
Alcatraz.....	450
Alcazar.....	450
Potro.....	500
Sea Fox.....	80
Acme.....	294
Samoa.....	377
Aurelia.....	16
Union.....	67
Argyll.....	2,953
Whittier.....	1,295
Verba Buena.....	800
San Jose.....	800
Rosecrans.....	2,976
Total, 119.....	97,101

## New Tank Farm.

The Prairie Oil and Gas Company has bought a "tank farm" near Neodesha, Kan., upon which it proposes to erect the storage reservoirs necessary to accommodate the increasing production of the Kansas oil fields. The property is the G. W. Argo farm, located a mile and a half north of Neodesha, and consists of 153 acres. Two 55,000 barrel tanks will be removed from Texas and built on this farm. It will be made the central storage station for Kansas and Indian Territory.

## Coal vs. Fuel Oil.

A writer in the Engineering Magazine has figured out that oil for fuel purposes, in some parts of the country, is not available, because of the cheaper cost of coal. In New York city, for instance, coal is much the cheaper fuel, while in California, Texas and the Southwest, oil has the advantage over coal in this particular. He makes no allowances for the saving in firing, the cleanliness and superior efficiency of petroleum in drawing his conclusions. Of course, says the Oil City "Der-rick," it is an utter impossibility for oil to replace coal to any great extent, so long as coal continues abundant and the supply of oil remains about the same as at present.

He takes for his first illustration a large power plant run in New York city with anthracite buckwheat coal at \$2.85 per ton of 2,000 pounds and reduced oil from the Texas fields delivered at \$1.47 per barrel. Here are the figures:

1 ton of coal.....	\$2.85
Firing of coal per ton.....	20
Removal of ashes.....	18
COAL.....	\$3.23
3.6 barrels of oil at \$1.47.....	\$5.29
Steam for burners.....	14
Additional repairs.....	5
OIL BURNING.....	\$5.48
Increase in cost with oil burning, 69%.	

Here coal is shown to be cheaper than oil by \$2.21 per ton, allowing 3.6 barrels of oil as the equivalent in heat production of 2,000 pounds of coal. This second illustration is a similar plant in New Orleans, where oil is delivered at 55 cents a barrel (a figure now entirely too small) and coal at \$5.25 per ton. This is the way it works out:

1 ton of coal.....	\$5.25
Firing coal per ton.....	20
Removal of ashes.....	18
COAL.....	\$5.63
2.55 barrels of oil at 55 cents.....	\$1.40
Steam for burners.....	14
Additional repairs.....	5
OIL.....	\$1.59
Saving in cost with oil burning, 72%.	

Of course, here oil has the greatest advantage and is capable of effecting a great saving. The coal sold in New Orleans is an inferior grade and costs nearly twice as much as coal in New York. About 2½ barrels of fuel oil are the equivalent of a ton of this kind of coal. Even at \$1.50 per barrel or more oil would have a great advantage over coal in this part of the country. The two illustrations are instructive as showing how great may be the saving from the use of oil in certain places and how impossible is its use in many others.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

A dispatch from Tacoma says that General Manager L. M. Washburn of the Northern Commercial company has arrived at Dawson on his annual tour of inspection. He announces that 23,000 barrels of oil are being shipped from San Francisco to San Michael by his company for use as fuel on the company's lower river steamers and two of the company's tugs at St. Michael will burn oil, taking their supply from the oil stations erected along the Lower Yukon between Dawson and St. Michael. At Dawson Manager Washburn has been investigating the possibility of furnishing California oil as a cheap fuel for working the Klondike mines. He inclines to the belief that the high tariff will make the importation of oil impossible unless the duty be reduced. The cutting away of the near-by timber is making the fuel question a very important one in the Klondike districts. Manager Washburn believes that the introduction of cheap fuel oil would permit the thawing and working of low-grade placer ground now untouched.

### COALINGA.

The Echo Oil company, located on section 29, 20-13, spudded in on well No. 3 last week.

The Stockholders' Oil company on section 28, will begin pumping its first well, and during the early fall will begin drilling on No. 2.

Bryner & Smith, who are interested in several companies operating in this field, have spudded in on a well in the Devil's Den district, twenty miles from Coalinga, this week. Indications point towards a well at a comparatively shallow depth.

The Octave Oil company has purchased the N½ of the NE¼ and the S½ of the S½ of the NE¼ of section 22, 19-15 from Mr. L. L. Corry of Fresno. This property was formerly owned by the Elk Oil company who drilled one well on it but was unsuccessful in completing it.

The Blue Diamond Oil company has been very successful with its work thus far. The rig has been overhauled and put into first-class condition, a string of 11¾-inch casing pulled, and on the 13th, drilling was begun. The managers expect to finish the hole within six weeks.

The Coalinga Oil News, a weekly publication that appeared until about a year ago under a different name, is to be published again from now on. Mr. George Ehle of Hanford, who managed the Coalinga Derrick for some time will be the proprietor and editor, and he will devote nearly his entire attention to the paper.

The Commercial Petroleum company finished its No. 2 well last week, which proved to be one of the best producing wells in that section of the field. The gravity of the oil is in the neighborhood of 24, considerably lighter than the other wells in section 31. At a meeting of the company on the 6th inst., it was voted to levy an assessment of \$1 per share to provide the necessary capital for beginning work on six new wells on its present lease. The company is now advertising for bids to drill the six wells.

Owing to the delay in completing the pipe-line between the tank on section 6 and 21, the companies furnishing oil for the section 6 tank were compelled to shut down part of the time last week. The line is now finished and no further delay in the future is anticipated. The

Standard company's surveyor was in the field surveying the prospective pipe-lines connecting the Coalinga and Home Oil companies with the tanks on section 21. The tanks that were unroofed by the recent windstorm have been repaired.

### FULLERTON.

A new gusher was struck a few days ago on the Santa Fe property at Olinda and for several hours it spouted oil at the rate of 400 barrels a day, accompanied by considerable gas. The oil is of a light gravity and remarkably free from sediment. The strike was made at a depth of 2,463 feet and is the second made by the Santa Fe within a very short time. The Olinda oil, on account of its light quality, is much in demand for the manufacture of light products.

### HALF MOON BAY.

The Guiberson company are building rigs for the drilling of new wells.

The Pilarcitos Oil company, also the Tesla, that have been drilling near Half Moon Bay, are making fairly good progress.

The High Gravity Oil company on Turitas creek are making fairly good progress on their job of under-reaming in order to lower the big casing to the lowest possible depth. They are now using oil in the place of wood for fuel.

The latter part of June the Paxton company stopped its well at 1,560 feet while in oil bearing strata, as that was as deep as the 7% casing could be put. While waiting for a string of 5% casing more than 200 feet of 50 gravity oil has raised in the well. Work will continue on this well as soon as the pipe arrives and indications are that they will have a big well.

The latter part of June the Wisconsin company concluded to lower their six-inch drive-pipe that had become very tight at about 1,200 feet. Two heavy charges of dynamite were placed below the point of the pipe in the hard sandstone formation carrying much oil. The dynamite discharge was made to loosen the pipe, hence it was a great surprise to the operators to note a vast volume of oil come from the well and shoot above the derrick roof. The dynamite discharge loosened the pipe, which was taken from the well and the hole is now being under-reamed and the pipe successfully lowered. The Wisconsin has 135 feet of hard sandstone formation that carries much oil, and if thoroughly shot with dynamite or nitro-glycerine would produce a good well without going deeper. Mr. J. E. Kerr says the well will be put to the lowest possible depth in order to test the field and get as big a production as possible. A string of pipe has been shipped and is now being hauled out. Practical oil men who have examined the lands and the wells being drilled on Tunitas creek have stated that wells at 2,000 feet in depth will be among the biggest producers of the State.

### KERN

Ex-County Surveyor Charles Congdon leaves for the Carissa district in a few days. It is reported he will resume work on the Western Union Oil company's well, which was shut down a short time ago.

The Aztec Oil company has just paid another dividend of 2 cents a share. The Aztec is in the Associated but had contracts outstanding before entering

which the big combine is filling, hence the dividends.

J. A. Chanslor, of the Associated Oil company, and also largely interested in the Coalinga and other fields, has returned from a six weeks' visit in the East. Manager Porter of the Associated is now away taking a much needed rest.

The Cameron Oil Land and Investment company has decided to the United States Oil company of New York all the lands, franchises, leases, etc. The consideration is \$300,000, and the real property is transferred in the Vallecitos and Erie districts.

The 4½-inch drive-pipe ordered by the Arcata Oil company from the East some months ago has just been received and work will be resumed in a very short time on the company's property on 31-32 24 at Sunset, where there is already an uncompleted well.

The United States Oil and Mining company, which a short time ago levied a 1 cent assessment, has leased forty acres of land near the Sea Breeze company at McKittick and will immediately put down a well. The company formerly operated on section 35, 12-24 at Sunset.

The Associated Oil company is starting in to drill new wells as rapidly as possible in order to get the oil to meet the increasing demand. The big 408,000-barrel reservoir at Kern River is completed, and work is being pushed on the McKittick reservoir. Great activity is being exercised on all the leases of the property.

The Cuyama Valley Land company, incorporated June 20th, will operate in the Cuyama district. The company believes it has secured exceedingly valuable oil property. Among those interested are H. A. Rispin, F. H. Davis, Charles Seales, H. C. Tilden, R. R. Vair, George T. Cameron, J. C. Fitzsimmons, W. R. R. Young, William Matson. These gentlemen are nearly all prominent in the oil business.

In Sunset great activity is being manifested since definite news has been obtained of the early building of the pipe-line through the field. The National Tube company will have the pipe built in six weeks, and it will take a month from that time to get the pipe on the ground. Meanwhile the reservoirs will be constructed and the ditch dug for the pipe. When it arrives it will be put into the ground as rapidly as possible.

Grave reports continue to be circulated

concerning the flooding of some of the Kern River wells from water. It is said that last month the Monte Cristo company did not obtain over 3,000 barrels a day from its fifty or more wells, and that this month the production will be less. It is also said that water is now a serious menace to some of the holdings in southern Sunset. Something radical must be done in this matter or else a very large number of wells will soon be pumping water only instead of oil.

C. H. Congdon, superintendent of the Union Pacific Oil company, drilling on the West Side at Carissa, shut down work at 430 feet, on account of lack of casing. The drill passed through a thin stratum of oil at a shallow depth. The formation from 180 feet depth was black shale throughout in which was found oil seepage. During the last few days work the roaring of the escaping gas was great, and when the hole was permitted to fill with water the gas escape through the same sounded like a "boiling pot."

### MONTEREY.

The Combined Oil Land company's well near San Lucas is down only a little over 300 feet. Two fishing jobs have made trouble. The drill is in a hard shale and has to be dressed five times a day. The hole is fourteen-inch.

### SAN BENITO.

The road between Hollister and San Juan, over fifteen miles in length, is to be oiled at once by sprinkling upon it oil taken from the wells of the Watsonville Oil company at Sargents.

### SAN LUIS OBISPO.

Ninety-eight mineral locations in the Cuyama valley were filed for record recently with County Recorder Bradley, says the Press. They are understood to be oil locations and are all filed by one person.

### SANTA MARIA.

The Union Oil company has laid four miles of two-inch water pipe and are now pumping or forcing water from the Catherwood springs to all points where boring is in progress. It requires a twenty-five horsepower engine to do the work.

### W. A. BROPHY,

914 Mutual Savings Bank Bldg.,  
708 Market St., San Francisco.  
Telephone, Green 816.

Petroleum Lands Examined and Reported on in all Parts of the United States. California a Specialty.

**DEBENTURE SURETY COMPANY**  
INCORPORATED  
Rialto Building  
San Francisco,  
A PROFITABLE MINE.

The Omaha Gold Mining Company is one of the best. Low capitalization of \$100,000; two quartz claims; ample wood and water on the property; no debts; close to railroad; company officered by bankers and practical mining men of San Francisco; no salaries to officers; no promotion stock; day and night forces at work on three tunnels taking out wonderfully rich ore, more than enough to pay all expenses of operation. The property was acquired with a two-stamp mill, which is to be replaced by a ten-stamp mill.

Less than \$10,000 worth of stock will be sold, which means such a small amount of stock will earn enormous dividends. Dividends of not less than 1% will be paid, beginning with October. The company will pay not less than 5% per month beginning with January, when the ten-stamp mill is in operation.

A few shares left at 5c per share; when sold the price will be doubled, possibly trebled. If you want dividend-paying stock, remit without delay.

**DEBENTURE SURETY COMPANY (Inc.)**  
Rialto Building, San Francisco, Cal.

Mention this paper.



**THE REED CRUDE.****Stockholders to Consider a Reduction of Stock.**

The Reed Crude Oil Company, having disposed of its Associated stock, is about to consider the advisability of reducing its capitalization from \$2,000,000 to \$100,000. After selling its associated interests, the company will still have large assets on hand to continue business but not sufficient to justify the present capitalization, hence the reduction is to be made in compliance with the law. The directors have called a meeting of the stockholders to be held in Los Angeles on September 10th to

Company stock to the total limit of 581,186 shares at the same price, to wit, 30 cents per share and pro rata as per their holding of Reed Crude Oil Company stock. Any stockholder desiring to take Associated Oil Company stock instead of so much cash out of the proceeds of this sale, must notify this company not later than September 1, 1903. In other words, Reed Crude Oil Company stockholders can buy back Associated Oil Company's stock at the same price at which it is sold by the contract, if they so desire. The proceeds of the sale of this stock will be ready for payment to the stockholders of the Reed Crude Oil Company as

ury.

Interest in contracts which will continue to pay something like \$1,000 per month for three years more.

If capital stock is reduced as low as \$100,000, the company can sell out of the property listed above, from time to time, and the directors can pay the proceeds to the stockholders in dividends without being again compelled to make reduction of capital stock, so as to comply with the law. Should the company finally sell its last \$10,000 worth of property, it can then disincorporate. Any letters of inquiry for further explanation will receive prompt attention.

Very truly,

T. S. FULLER,  
Secretary Reed Crude Oil Co

Lake, form the directorate. R. M. Pope of Vernal is also connected with the enterprise.

The new company has acquired 480 acres of land near the head waters of Willow creek, Grand county, where it is stated that there are in sight 6,000,000 tons of asphaltum, which can be mined at a minimum cost.

A contract has been let to A. T. Davis of Berkeley, Cal., for a roo-ton refinery which is to be erected by the early part of August. As soon as the refinery is ready mining will begin. The production at first will be fifty tons a day, all of which will be shipped to the Boston company.



A corner in the great Kern River Oil District.

consider the advisability of such action.

The following circular to stockholders has been issued by Secretary Fuller:

Los Angeles, Cal., July 1, 1903.  
To the Stockholders

Reed Crude Oil Company:

A contract has been entered into by this company by which it is agreed to sell the company's holding of Associated Oil Company stock, to wit: 2,841,086 shares, at 30 cents per share, payable in cash on November 2, 1903. The stockholders of the Reed Crude Oil Company have the right under the contract to buy the Associated Oil

soon after November 2, 1903, as possible, and to enable this to be done under the law, this property representing a large part of the capital stock the capital must be reduced. It really makes no difference to the stockholders, as their several percentages will be that much more—the interest remaining just the same in dollars. Unless the capital stock is reduced this distribution of money cannot be made. The company will have an asset after selling this stock property as follows, to wit:

Three hundred acres of oil land.  
\$120,000 in 5 per cent bonds of Associated Oil Company.

About \$25,000 in cash in treas-

**UTAH ASPHALT.**

**A Corporation Formed to Mine the Asphalt Beds.**

The Intermountain Asphalt company is the name of a corporation organized under the laws of the state of South Dakota a few days ago to operate in the carboniferous regions of Utah.

The capital stock is \$250,000, divided into 50,000 shares of \$5 each. The officers are as follows: President, W. H. Innes, Bolse, Idaho; vice-president, R. W. Schuttler, Salt Lake; secretary, Nels Vorsberg, Salt Lake; treasurer, Truman Schenck, Salt Lake. These, with A. G. Mahan of Salt

The promoters say that the entire cost of mining, refining, hauling and freight to Boston will be \$17.50 a ton. The market price there is \$40 a ton.

**Big Oil Purchase.**

The Southern Pacific Railroad has made another large purchase of crude petroleum oil and at a price that shows the oil market to be on a firm and substantial basis. A deal has just been completed whereby the road purchased for cash 200,000 barrels of oil from the Apex Company, paying for the same 73 cents per barrel on board the cars. The deal was consummated several days ago, but was not given out until to-day. The effect of this large sale is to steady and encourage the market.—Beaumont Journal.



# PACIFIC OIL REPORTER'S

## OIL LAND DEPARTMENT

**Is the only Agency on the Coast Handling  
Oil Lands Exclusively**

For a long time the PACIFIC OIL REPORTER has realized the need of an agency on the Coast to handle oil properties exclusively. Time and again this office has been importuned by parties desiring to secure firstclass oil lands to recommend or secure contracts of purchase of lands that were known to be absolutely safe for development. To all such we were obliged to reply that we were not in the land business. Often these buyers would not consent to deal with the outside agents to whom these inquirers were turned over. In order to serve our friends and patrons, both buyers and sellers, this department has been established. The wisdom of this move has already been amply demonstrated. We feel highly complimented at the evidences of confidence that the investing public has already shown in the REPORTER'S land department. Owners of high grade oil lands in all sections of California, as well as Utah and Wyoming, recognize our land department as a legitimate and trustworthy medium through which they can be brought into touch with the investing public. Both classes have instantly recognized the unsurpassed facilities which this department affords. We have no competition. We are the only agency of the kind on the Coast. We can therefore afford to discriminate. This we do. We will not, under any consideration, handle questionable propositions. The policy which the PACIFIC OIL REPORTER has strictly adhered to heretofore in its editorial and news columns will be even more strictly followed, if possible, in handling the business of this department. Properties which will not stand the closest investigation will not be handled at any price. Stock jobbing schemers and fakirs we have no time for. This they know already, consequently our patronage comes from the legitimate dealer.

### TO THE BUYER.

To those who desire to purchase oil lands, either as an investment or for development purposes, we have something of special interest. At present the Coalinga field is coming to the front as no other district in the

state, and offers greater inducements to the investor than any other district that we know anything about. We have listed with us the very cream of the field. We have for sale the only available property in the "gusher" territory. Section 6, 20-15, is without doubt the choicest oil land in the state, if not in the United States. We have the agency for the fee owners of this entire section. There are seven producing wells on the section, including the two great Esperanza gushers. The price at which this land can be bought is ridiculously low compared to its real value. We have over 2,000 acres of land in the proven territory of this field at prices way below the ruling prices in other proven districts in the state. We also have some very choice proven territory in the Kern River, Sunset and Midway fields, in Kern county, as well as in Lompoc district in Santa Barbara county.

We are the exclusive Pacific Coast agency of the Evanston, Wyoming, Oil Exchange, and have the very choicest lands in the great Uinta district listed with us. In addition to this great list we have more than 8,000 acres in the new Salt Lake fields, in Utah, offered to us, and we are now investigating this field, with a view to listing this great tract. This will give you an idea of what we have to offer, and every day is adding to the list.

### TO LAND OWNERS.

A glance at our listings is enough to convince any one that we have the confidence of oil men everywhere. Our facilities for handling oil lands are unequalled. We know a thing or two about oil lands ourselves, and when we are satisfied that a property is all right our endorsement carries weight. Consequently the discriminating investor seeks our endorsement.

We do no hawking about the streets. We boom no particular tracts. We have no pet schemes. We are unhampered. If your land can be sold on its merits we can handle it. Otherwise we don't want it. Send us a full description of your property, and we will tell you whether we think we can handle it or not.

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**LAND DEPARTMENT, PACIFIC OIL REPORTER**

**U. M. THOMAS, Manager**

**318 PINE STREET**

**SAN FRANCISCO, CAL.**



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, July 15th:

ALMA.		
100 at 1 50		\$ 150 00
APOLLO.		
2,300 at 45		1,035 00
ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.		
4,200 at 24		1,008 00
HOME OIL.		
1,625 at 2 95		4,793 75
1,150 at 3 00		3,450 00
400 at 3 00 (B 5)		1,200 00
100 at 3 00 (B 30)		300 00
INDEPENDENCE.		
5,500 at 16		88 00
500 at 17 (B 60)		85 00
JUNCTION.		
45 at 20		9 00
3,500 at 21		735 00
200 at 22		44 00
KERN.		
375 at 5 25		1,968 75
LION.		
1,000 at 06		60 00
MONARCH.		
200 at 51		102 00
125 at 52		65 00
MONTE CRISTO.		
200 at 1 00		200 00
200 at 1 00 (S 5)		200 00
1,000 at 1 00 (S 90)		1,000 00
NEVADA CO.		
100 at 30		30 00
OCCIDENTAL OIL.		
200 at 19		38 00
1,700 at 20		340 00
OIL CITY PETROLEUM.		
400 at 30		120 00
PEERLESS.		
165 at 14 00		2,310 00
REED CRUDE.		
600 at 39		234 00
400 at 40		160 00
SAN JOAQUIN.		
10 at 5 00		50 00
SOVEREIGN.		
200 at 37		74 00
1,000 at 38		380 00
STERLING.		
10 at 2 90		29 00
200 at 3 00		600 00
TWENTY-EIGHT.		
300 at 4 00		1,200 00
2,800 Shares	Amount	\$22,850.50
FISHER R. THEATRE CO.		
500 at 2 50		1,250 00
500 Shares	Amount	\$1,250.00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma	1.55	
Apollo		.50
Asso. Oil Co Stk. Tr. Certificates	.23	.25
Aztec	1.75	
Bay City	.45	
Bear Flag	.15	
California Standard	.10	
Caribou	.80	.85
Central Point Con.		.85
Chicago Crude	.20	.21
Clairemont		.35
Esperanza	1.20	1.50
Fauna		.04
Four		.72
Fulton	2.90	
Giant	.15	.30
Hanford	115.00	119.00
Home	2.95	3.00
Homestake	2.50	
Imperial		20.00
Independence	.16	.17
Junction		
Kern	5.25	6.00
Kern River		12.00
Lion	.05	.06
Monarch of Arizona	.52	.55
Maricopa	.10	
McKittrick	.13	
Monte Cristo	.97½	1.00
Nevada		.40
Occidental of West Va.		.20
Oil City Petroleum	.29	.30

Peerless	14.00	
Petroleum Center		.05
Pittsburg		.45
Piedmont	.06	.10
Reed Crude	.37	.40
S. F. & McKittrick	2.00	2.50
San Joaquin O. & D.	5.75	
Senator	.69	
Shamrock	.15	.23
Sovereign	.37	.40
Sterling	2.90	3.00
Superior	.05	.06
Thirty-three		8.25
Toilec		.25
Twenty-eight	4.20	5.00
Union		64.00
United Petroleum		118.00
West Shore	2.80	
Western Petroleum	.13	
Wolverine	.57	

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

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7:30	A. M.—BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.
9:30	A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11 a. m.
9:30	A. M.—VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
4:00	P. M.—STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
8:00	P. M.—OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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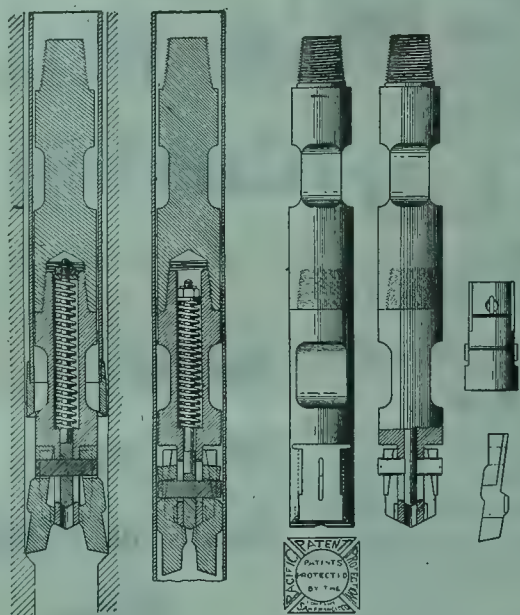
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SAN FRANCISCO, CAL., SATURDAY, JULY 25, 1903.

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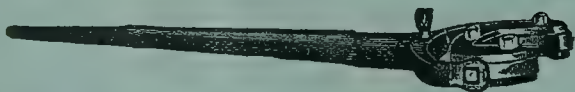
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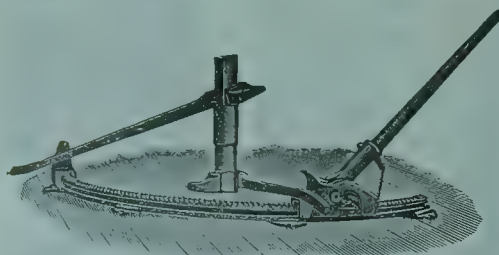


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# PACIFIC OIL REPORTER

VOL. 4. No. 38. SAN FRANCISCO, CAL., SATURDAY, JULY 25, 1903. PRICE, TEN CENTS.

## OIL AT POINT RICHMOND.

### Oil From Bakersfield and Coalinga Now Flowing Into the Tanks.

### The Future Greatness of Richmond which is Destined to Become a Center for Vast Industrial Manufacturing and Shipping Enterprises.

The oil from the Kern county and Coalinga fields commenced flowing into the tanks of the Standard Oil Company at Point Richmond on Monday morning. This practical demonstration of

bration of any sort. There was nothing that would indicate the successful carrying out of a plan that had involved the expenditure of over SIX MILLION DOLLARS in tankage, pipe lines, refineries,

Richmond that have been prepared to receive the oil are rapidly filling up. The Standard has proved that the best way to do a thing is to go ahead and do it. The result simply shows what money and brains can accomplish. Now that the oil is here, the PACIFIC OIL REPORTER desires to call attention to the importance of this event both to the oil industry, to the State in general, and more particularly to Point Richmond as a seat for vast commercial, industrial and shipping enterprises that will naturally follow as the result of the singular advantages possessed by this little city which until lately was not on the map of California.

passengers. Three years ago Point Richmond had upon it nothing except irregular fences, which protected the few crops which grew upon it from the cattle which browsed upon its hill-sides. To-day numberless railroad tracks intersect it on every side, both those of the Santa Fe and now those of the Southern Pacific company which lately has thrown its tracks over to the Point from the westward, and is reaching out for its share of the immense traffic which is already beginning to find its outlet directly at the Point itself. The Point was the place the great Standard Oil company chose as the site for its new refinery, now nearly completed and which



Point Richmond, the coming Industrial and Shipping Port of the Pacific Coast. Tanks and Refinery of the Standard Oil Company Seen in the Distance.

the success of this the greatest pipe line in the world, marks a great epoch in the oil industry of California, and also marks a still greater epoch in the history of the manufacturing industries of this State. Although the event was of such importance to California, the success of the pipe line was proved and accomplished without any outward mark of its importance. There was no celebration. The officials of the Standard Oil Company were not present to note the arrival of the precious greasy fluid. There was no blowing of trumpets, no speechmaking, no cele-

steamers, etc. The oil simply had arrived and that was all there was to it. A number of newspapers and thousands of individuals have been prophesying the oil would never reach Point Richmond; that the pipe line was a failure; they knew it would be; they had tried to pump Kern River oil and they knew it could not be pumped such a distance. It is all over now. The prophets of evil and failure are silent. The oil is flowing at the rate of 10,000 barrels a day, just exactly as the engineers of the pipe-line said it would flow, and the tanks at Point

#### Point Richmond

Three years ago Point Richmond as a community or town was unknown. To-day it is a thriving city of 4,000 people, with not a house or store to rent, and with new buildings going up on every side. Three years ago Point Richmond was simply a portion of an unknown dairy and farming ranch stretching out into the waters of San Francisco bay. To-day it is the terminal of the great Santa Fe railroad system, which sends from Point Richmond by boat to San Francisco all its freight and

is destined to be the largest refinery of crude petroleum in the United States and the world. To this refinery come the great tank steamers laden with refining oil from the vast oil fields of Ventura, Santa Barbara, Los Angeles and Orange counties. Here are unloaded daily numerous trains of tank cars from the oil fields of Coalinga, McKittrick, Kern River, Sunset and other fields located in the interior of the State and distant from the ocean, thus making transportation by sea impossible. Here is the terminal of the greatest oil pipe-line in the world, a line extended from Bakersfield



and the Kern River oil field, 278 miles in an almost straight line, over the rivers and through the swamps of the vast San Joaquin plains to Point Richmond—the best site for a refinery and for a distributing point that could be found on all the shores of San Francisco bay.

Here can be found every advantage that the great manufacturer or the great shipper could require. Straight to the Point from the east and south run the two railroads that traverse the State—the Southern Pacific and the Santa Fe. Here at the Point and all about the peninsula that form it can be found deep water sufficient to float the largest ships, and an almost natural wharfage always protected from wind and wave, thus affording security for vessels loading and unloading. San Francisco, the great metropolis of the Pacific coast is plainly

worth and uncover its richness.

In location and natural advantages Point Richmond has been a veritable nugget of gold, and its wealth is as yet but just begun to be developed. It is a mine mine that will bring untold wealth to its discoverers and to those who take advantage of the opportunities it presents for manufacture, for commerce, for trade and for judicious investment.

#### **Santa Fe and Standard.**

The credit for the discovery of the natural advantages of Point Richmond belongs to the Santa Fe railroad. After them equal credit should be given the Standard Oil company which has expended, directly and indirectly, over \$6,000,000 in building storage tanks at Bakersfield in which is gathered the oil which will flow to Point Richmond; in constructing a pipe-line and ships to trans-

which each year will be sent by pipe, train and steamer to this great refinery. Few people realize the vastness of the plans which the Standard Oil company is rapidly working out in order to provide for the growing demand for the various products which can be made from our California oil. The oil industry is so new—scarcely five years old really, and it has grown so rapidly, that few outside those directly connected with the production and disposal of oil, realize how important the oil industry has become. It is today the most important mining industry on the coast. More money has been paid out in the development of oil wells in the last three years than was ever paid out for the development of mines in the same period. More money is being received to-day, month by month from the sale of oil, than is being received from the

\$2,000,000 dollars have been expended upon this plant alone, and yet the refinery is by no means completed. All about can be noticed piles of brick and rubbish. New tanks are being built. More stills are being erected. More buildings for different purposes are being constructed. To day there are more than 500 men at work in and about the plant of the Standard Oil company, and yet the plant is so vast and covers so many acres that but few men are to be seen at any one place, and it is difficult to believe without a glance at the pay roll that such a small army of men are at work.

All over the town, which is so scattered that it covers an area sufficiently large to accommodate a city of vast population, can be heard the sound of the hammer and the saw wielded by men engaged in putting up residences, hotels, stores and factories. On the edge



Refinery of the Standard Oil Company at Point Richmond. Capacity, 20,000 Barrels.

visible diagonally across the bay only seven and a half miles distant, and reached easily in less than a half hour's sail by ferry boat.

#### **A Nugget of Gold.**

Now that Point Richmond has been chosen as a manufacturing and distributing point the question is freely asked: "Why was it that its advantages were not discovered before, and how is it that a place having so many and so great natural resources has been allowed to lie unrecognized and undeveloped so long, especially when there has been for years a great lack of just those advantages which Point Richmond possesses in abundance?" Point Richmond has been like the gold mine which lay for years almost within stone's throw of a community unknown and undeveloped until someone was shrewd enough to discover its

port the oil to the Point, and in erecting an enormous and perfectly equipped refinery for treating the oil when it reaches the Point.

#### **Oil is King.**

The photographs in this issue of the PACIFIC OIL REPORTER show in a measure the commercially strategic location of Point Richmond, and show also how great are the plans the Standard Oil company is perfecting in order to carry out its gigantic purposes for disposing of the products of the great oil fields of California.

A glance at the photographs of the refinery shows that at the present time the plant is by no means complete. Although the works as now completed cover an immense area new buildings are being erected, solidly constructed of brick, in order to refine and treat the millions of barrels of oil

ore of the mines. The saving in fuel to the manufacturers, the railroads and the steamship lines from the use of oil instead of coal, amounts to millions of dollars annually, and this saving is increasing as the use of oil increases.

Among the industries of California to-day OIL IS KING.

#### **Process of Development.**

An examination of the photographs, or rather the half-tone reproductions of the photographs taken for this edition, shows that everything about Point Richmond in the line of improvements is in process of development. Hardly anything yet is completed. Everything is growing. Nothing is really finished.

Look at the pictures of the Standard refinery.

#### **More Improvements.**

Within the last two years over

of the flat on the northeast portion of the tract is a large force erecting the great building for a stove foundry which will be completed before the first of the year, and which will give employment to fully 100 skilled mechanics.

On the Belt Line which is encircling the point which stretches out into the bay is another large force building the railroad which will soon run clear around this point and which will open up one of the finest locations for wharves, warehouses, etc. that can be found on the entire bay shore. Here is a long stretch of bay shore where a depth of from thirty-two to forty feet of deep water can be obtained close to the land, making it possible for wharves to be built at minimum expense and difficulty, and where deep-sea vessels can lie safe from any danger of storm, fierce tides or shallow water.



**Railroad Facilities.**

Connecting with this belt line, which is a private corporation, are the Santa Fe and Southern Pacific railroads, which together intersect the State from north to south and from east to west, and which will bring to Point Richmond the treasures of the wheat fields and orchards, the wines and raisins of the vineyards, and will send the varied products of California over the world and up and down the coast by the sailing vessels and steamers which will load their cargoes under the sheltering protection of Point Richmond. All this takes time, but the men are at work in small armies. The Belt Line is being built as fast as the track can be completed, and as

the hillside, and around this first group of dwellings the town grew up and enlarged. As will be seen from the photograph this first portion of the town was a "hill town," and it is called a "hill town" to this day, to distinguish it from the other portions of the town which have grown up on the east and south. Naturally being the first portion of the town to be settled up, here on the hillside were established the first hotels, the first business houses, the first banks, churches, schools, etc. When the refinery started naturally the town grew toward it as is also seen in the picture, and house after house was built along the base of the hill on toward the numerous buildings of the Stand-



Santa Fe depot at Point Richmond.

fast as the rails can be obtained and laid. The wharves are going up, and the great warehouses are being built.

**City of Richmond.**

Just as these great enterprises are in process of construction and completion, so are the improvements connected with the town in process of completion. A city is not built in a day. Streets are being laid out; not at random, but with the intention of meeting the wants of the large city which ere long will be established here.

When the town was first started it grew up near the tunnel which penetrated the hill just north of the wharf which was the terminal of the Santa Fe railroad. The first dwellings were built upon

ard Oil company.

When it became evident that the Standard was to locate an immense plant at the Point, the Southern Pacific company concluded that if it was to obtain a share of the great traffic of the Standard it must lay its tracks to the plant. Up to two years ago and less the tracks of the Southern Pacific were two miles west of the Point. In order to get the traffic of the Standard refinery the only thing for the Southern Pacific to do was to build its tracks to the plant. This they proceeded to do as rapidly as possible. Where there was formerly no station, a new station was established called "Richmond," and this is now the eastern boundary of the town. A photograph of

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## Pacific Coast Headquarters

**117 North Main Street**

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this station is shown elsewhere. The present station is but a modest affair, but in a few weeks it will be superseded by a large structure of architectural pretensions, and will be an index of the importance the Southern Pacific company attaches to the growing passenger traffic of this new city which two years ago was not large enough to warrant even a small station.

**The Belt Line.**

Reference has been frequently made in the foregoing concerning the "Belt Line."

This is a private railroad, inde-

pendent of the Santa Fe and Southern Pacific railroads, yet connecting with them at their terminals at the refinery of the Standard Oil Company, and connecting also with the tracks belonging to the refinery, which are laid in different directions intersecting the plant.

The Belt Line road is a California corporation, owned, built and managed as a private enterprise, the principal ones connected with it being W. S. Tevis, president of the corporation, and H. C. Breeden, E. S. Pillsbury, C. E. Worden and D. G. Scofield.

These gentlemen, foreseeing the

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View of Richmond Avenue.

future of Point Richmond as a manufacturing and shipping point, quietly obtained the ownership of nearly 2,000 acres of land, extending from the property of the Standard Oil Company at the southern portion of the peninsula, and thence extending north and east so that it comprises a large portion of the peninsula, especially that portion which runs along the shore line, where deep water affords facilities for loading and unloading deep-water ships of great draught. There are over seven and one-half miles of this deep water frontage.

The Belt Line company is now constructing a railroad from the Standard refinery, clear around this peninsula, and is building an immense wharf at the terminal, located three miles north of the wharf of the Standard Oil Company, and opposite the lighthouse on the Three Brothers islands. This railroad is now four miles long, and at its terminus a wharf is being constructed 600 feet long by 100 feet wide. It is the intention of the company to construct warehouses for grain and other products, so that this will in a short time become an important shipping point for all the products of the State.

It is estimated that the Belt Line road will involve an expendi-

ture of over \$200,000, and that this line will in fact be a terminus of both the Santa Fe and Southern Pacific railroads.

The property owned by this company is not only very valuable

the Belt Line road are some of the best known and most influential business men of the Pacific Coast. They have not entered upon this immense undertaking as a mere business speculation, but have ad-



Richmond, near the Santa Fe Depot.

at the present time, but its value is increasing as it becomes more and more evident how superior Point Richmond is as a manufacturing, business and shipping center.

The gentlemen connected with

vanced large sums of money in the belief that this would be an enterprise of great permanence and magnitude, and which would finally result in the establishment upon this portion of the bay shore a shipping and transportation busi-

ness that would be second to none in the entire State.

It has been incorrectly stated that this company, the corporate name of which is the Richmond Belt Railway, is an adjunct of, or indirectly connected with, the Standard Oil Company. This is not true. The Belt Line is a private concern, undertaken by California capitalists, some of whom are connected with the Standard Oil Company, but the railway company has absolutely no connection with the Standard, or the Santa Fe or the Southern Pacific.

The engineer of the Richmond Belt Railway is Frank J. Baker.

#### Associated Oil Company.

The Associated Oil Company at present has a tank at Point Richmond at the terminal of the Santa Fe railroad tracks, which has a capacity of 37,500 barrels. In this tank is stored the oil sold by the company to points on the bay



The Standard Refinery, from the Northwest.

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above the track. A pipe line extends from this tank along the wharf of the Santa Fe, so that the oil is easily run from the tank into the barges which transport the oil along the bay and up the rivers. The company has three large barges which are constantly busy. At the wharf the boats of the Santa Fe also receive their fuel oil, and here also daily many bay and river steamers call and fill up their fuel tanks easily and quickly.

The Associated has ordered two more tanks of 37,500-barrel capacity each, and these will be constructed as rapidly as possible.

### Facts About the Pipe Line

Now that the oil is running in the pipe line successfully and is pouring into the tanks at Point Richmond at the rate of nearly 10,000 barrels a day, some facts relating to the line will be of interest.

The work of constructing the

capacity can be doubled.

Each mile of the pipe weighs 74.58 tons, so that there were in all 20,000 tons, which, loading 40 tons to the car, would make 515 carloads. These, if stretched out,

plant for the combined ten pumping stations made a tonnage of over 3,000 tons, and filled 75 cars.

The statement that four more pumping stations will be put in between Bakersfield and Mendota,

At present there are ten pumping stations along the line with an installation of four 150-horse power boilers each, although the pumps which are now installed will not have anywhere near capacity enough to tax the power of the boilers.

Starting from Bakersfield, the first station is at Waite, where the main tanks of the company are located. From Waite the line goes to Pond, between twenty-five and thirty miles distant, that being the average distance between the stations. Then the pumping stations follow along as follows: Corcoran, Lethent, Mendota, Dos Palos, Newman, Vernalis, McCabe and Maltby. This latter pumping station is near Avon, on the shores of Suisun bay, and is the last station before Point Richmond is reached.

Besides the work on the laying of the line, the erection of the pumping stations has been a costly task. All the construction work on the stations has been done by the company. As has already

(Continued on page 9.)



Business Street in Point Richmond.



Wharf and Whale-oil Works of Standard Oil Company.

line commenced a year ago last March, so that nearly sixteen months have elapsed before the first trenches were dug to the arrival of the oil at Point Richmond.

The line is 278 miles, and is made of 8-inch pipe.

A branch line runs from Mendota, 31 miles to the Coalinga oil field. This line is made of 6-inch pipe, as the oil running through it is of a lighter quality than the Kern oil, and there is a fall of nearly 1,500 feet between the receiving tanks at Coalinga and the tanks at Mendota.

Each mile of the pipe contains a little more than 325 barrels of oil, so that, not counting the oil in the great tanks at all the pumping stations, there is in the line alone over 100,000 barrels of oil in process of being pumped to the refinery. In order to fill this pipe in a day it would require the product of 1,000 wells having a capacity of 100 barrels a day.

It is estimated that it requires a little less than ten days to send the oil from Bakersfield to the refinery. This gives the line a capacity of 10,000 barrels a day. By using greater pumping power this

would make a train over four miles long.

The boilers, pumps, tanks and

is not true. The heavy oil is coming along all right, and no more stations at present are needed.



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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed by the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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ONE YEAR .....\$2 50  
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THREE MONTHS.....1 00  
SINGLE COPIES.....10c

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
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SATURDAY.....JULY 25, 1903

This edition of the PACIFIC OIL REPORTER Point Richmond is devoted and the Standard almost entirely to Oil Company Point Rich-

mond, present and future, and to the Standard Oil company, whose vast enterprises in oil are the main causes which have led to the rapid growth of a thrifty city, which, but for the Standard Oil company and the Santa Fe Railroad company would have continued to remain a bleak, uninhabited peninsula jutting out into San Francisco bay.

To-day Point Richmond is a growing city of 4,000 population without a store or dwelling to rent. It is the terminal of the Santa Fe railroad, and from the ferry slip of the company San Francisco is plainly visible, only seven and a half miles distant across the bay.

Around the peninsula called Point Richmond, is deep water frontage eight miles long, and here the largest ships can lie in safety absolutely protected from wind and storm. A railroad is now being constructed around this peninsula, and the parties who are constructing the railroad are also building ample wharfage and warehouse facilities. This railroad connects with the Santa Fe and with the Southern Pacific which latter railroad has been compelled to run a spur to the point in order to obtain its share of the rapidly increasing traffic.

The Standard Oil company was

among the first to grasp the possibilities of Point Richmond as a manufacturing and shipping center and brought a large acreage which includes a long water frontage, and on this tract the Standard has erected one of the largest oil refining plants in the world.

Here also are the great tanks in which will be stored the millions of barrels of fuel oil that are being used annually on the Pacific coast, and to this point was built the pipe-line from Bakersfield and Coalinga which will hereafter transport the bulk of the oil from the Kern River and Coalinga oil districts.

This week the oil began to come through the pipe-line and flow into great tanks.

The actual flowing of the oil has been a practical demonstration of the success of the pipe-line. building of this line at an expenditure of over \$2,000,000 was a great undertaking, and it has been carried through in the face of the open and almost universal opinion that the heavy Kern county oil could not be forced

line is only a succession of lines, ten in number, each one about twenty-five miles long, and each section separate and distinct from each other section.

The moment the oil was forced through the first of these sections the success of the whole line was demonstrated.

It has taken over two months to force the oil through. The line itself holds over 100,000 barrels of oil, and the tanks at the receiving stations hold over 200,000 barrels more. Some breaks in the pipe have appeared owing to defective welding of the joints. The pumps have been worked very slowly. So that for these and many other reasons it has taken some time to bring the oil from Bakersfield to the bay.

Now that it has come and is coming at the rate of 10,000 barrels a day the croakers have ceased their wail of discouragement. This wail should never have been started. It ought to have been considered that the Standard people knew what they were about before they began such an expenditure of money.

independent very largely of the railroads, with a very great lessening of transportation rates, the Standard will use the great advantage thus obtained not entirely for increasing its own revenue, but that the producers, whose product the Standard pumps through its line, will also receive some share of the benefits resulting.

A Southern Californian paper says that experience is Used the Wrong Kind of Oil sometimes a dearteacher.

It cost the city of Covina from \$800 to \$1,000 this year to learn that Newhall oil, as a road builder, is very inferior to the oil of the local Los Angeles field. It lacks the necessary asphaltum base and will not pack, as shown by the present condition of Citrus avenue.

As a road builder the Los Angeles oil appears to be the real article, but unfortunately the production is limited to about 60,000 barrels annually.

This amount is hardly sufficient to supply the present demands for road purposes in the county, and as the producer was taking advantage of the situation by rapidly advancing the price, the supervisors were compelled to look elsewhere for oil. However, experience has demonstrated that Newhall oil for road purposes is expensive at any price. The Whittier people are now clamoring for oil from the Whittier field to be used on the roads of that district. The experiment will prove a failure, as Whittier oil is even lighter than the Newhall product, testing 22 gravity.

Either the production of the Los Angeles field will have to be increased or the oiling of roads in the county will have to be limited to the present production.

We suggest that if the supply of Los Angeles oil runs short that plenty of the right kind of oil can be obtained from Kern county.

On Wednesday Dr. C. T. Deane, of the California A Valuable Petroleum Miners' Paper Association, read an exceedingly

valuable paper before the annual convention of the Gas Association of California. The subject of the paper was, "The Petroleum Industry of California from a Commercial Standpoint."

The address was so valuable, so suggestive and so replete with information that it could not in justice to itself be so condensed as to have it appear in this issue. It will be published next week in full and will be read with great interest.

Subscribe for the PACIFIC OIL REPORTER.

## SPECIAL SUBSCRIPTION OFFER

During the month of July the subscription price of the Pacific Oil Reporter is reduced from \$2.50 to \$1.50.

This offer is good only for July, and those who propose taking advantage of it should act at once.

through an eight-inch pipe.

A Los Angeles publication, that deals largely with oil matters, as late as July 18th had the following:

Next Monday it is expected the oil will be pouring into the tanks at Point Richmond.

We confess to being a little skeptical. That the "Standard has known all the time what it was doing" is hardly consistent with the fact that heating stations were made at intervals along the pipe-line to make the oil run through. If the experiment of running the oil through an Ohio pipe was successful, why was it necessary to heat it here in order to thin it and make it run? As stated a week ago, it is a chemical fact that the more a liquid carrying approximately 50 per cent of solids is heated, the thicker the liquid becomes. This certainly disproves the statement that the "Standard has known all the time what it was doing."

In line with the above the papers of Bakersfield, the center of the great oil districts of California, have expressed their lack of faith in the success of the pipe-line, while the San Francisco dailies have repeatedly stated that from scientific reasons the oil could never be made to flow such a distance through the pipe.

All these publications seem to have forgotten that the great pipe-

The croakers should have realized that the Standard people have had enough experience with oil to be able to figure pretty correctly on what was possible to be done in the way of piping oil. They are not novices in the business.

In the face of many discouragements the Standard has gone ahead, paying attention strictly to its own business. The company deserves great credit for the success of the pipe-line, especial credit being due those who had charge of the construction of the line, and the pumping of the oil.

As the oil to be pumped was of a kind that had never before been pumped for any such distance this particular pipe-line and the methods to be employed were largely experimental. Few, if any, mistakes have been made, and from the very first the experiment, if experiment it can be considered, has been a complete success.

The PACIFIC OIL REPORTER tenders its congratulations, and ventures to express the hope as the success of the pipe-line virtually solves the problem of transportation, and makes the Standard



Oil at Point Richmond.

(Continued from page 7 )

been stated, each station contains a boiler installation of 600 horse power, and these are housed in a brick building separate from the pump house in order to prevent any possibility of the oil becoming ignited by the fires in the boilers. In the main building the pumps are installed. These consist of the main pump and the heater for warming the oil, so that it will flow more freely through the pipes. In cold weather the oil congeals, and if some means are not taken to keep it at a moderate temperature, it will clog the pipes and cause endless trouble.

A third building is used for the quarters of the men employed at each of the plants. There are seven men required to operate each pumping station—a chief engineer, two assistant engineers, two fireman, a telegraph operator and a watchman.

Incidental to the operation, the company has in operation a complete private telegraph system running along the route of the pipe line from San Francisco to



Terminal and Ferry Slip of the Santa Fe at Point Richmond.

Central Bank building, to Point Richmond, and thence along the line as described.

The pumpman must know the exact quantity of oil that is pass-

ing between two stations. From north to south he telegraphs the amount of oil his register shows. If the registers do not tally it is

proof that the oil is not finding its way through the pipes as it should. The shortage is caused either by a leak or by an obstruction in the interior of the pipe.

through the pipe at the same speed as the oil, both being propelled at the pressure transmitted from the pumps. As the "go-devil" can only be located by its



Laying the eight-inch 278-mile Pipe-Line from Bakersfield to Point Richmond.

Bakersfield. The line comes from San Francisco across the bay to Oakland to the Oakland office of the Standard Oil Company, in the

ing between two stations. From north to south he telegraphs the amount of oil his register shows. If the registers do not tally it is

Here the mechanical genius of the linemen asserts itself. A novel device, known as the "go-devil," is inserted into the pipe. It moves

clicking noise while in motion, it must be followed up and down hills by relays of men. If its clicking ceases it is proof that some obstacle has been encountered. In this way the linemen can determine the exact spot at which repairs must be made to enable the oil to resume its normal flow.

The Standard Refinery.

The Standard Oil refinery is in reality the outgrowth of the refinery business of the Pacific Coast Oil company started twenty-four years ago when the oil business of California was in its infancy, and when no one dreamed it possible for the oil business to reach the proportions to which it has attained to-day.

In Ventura county the Pacific Coast Oil company obtained the ownership of a large body of land located chiefly in Pico canyon, and was successful in developing a large number of oil wells yield



Looking toward Richmond, on the new terminal branch of Santa Fe, to run from Richmond to Oakland.



ing a fine quality of refining oil.

At West Alameda a small refining plant was constructed which was run steadily and successfully for twenty-two years. About two years ago the entire property of the Pacific Coast Oil company was sold to the Standard Oil company, and in a short time the work of dismantling the plant of the Pacific Coast Oil company was commenced. At the same time

be able to treat the heavy Kern county oil for illuminating purposes. This is a mistake. At present it is not the intention of the Standard people to attempt to refine the Kern county oil for illuminating purposes. Not but that it can be refined. Any oil no matter how heavy or how refractory can be refined, and illuminating oil obtained.

But the oil from Kern county

gravity. It flows easily through the pipe-line, and when mixed with the heavy Kern county oil makes an oil of about 18° gravity, which flows readily and cannot be surpassed as a fuel oil. While this 20° Coalinga oil can be refined, and a larger per cent of illuminating oil obtained than from the Kern oil still the percentage of illuminant is so small that it will not pay to refine it as a rule, and

Pacific coast in the last few years; not only is the demand from the Pacific coast increasing, but also from the countries beyond and in the Pacific ocean. Until now the Standard has supplied the bulk of this trade from its Eastern refineries. Lately, however, the Eastern refineries have had all they could do to meet the demand from the Eastern and foreign markets, and to supply the increasing



School Building just completed at Point Richmond.

the construction of an immense refinery was commenced at Point Richmond.

For nearly two years work on this refinery has been pushed with the greatest rapidity. The tract of land on which the refinery is located, contains 110 acres, and extends from the flat on which the refinery is located out beyond a low range of hills to the deep water along the shore. Here a wharf 3,200 feet long has been built with a long "L" so that there is plenty of room for the great tank steamers belonging to the Standard Oil company to load and unload.

When the Standard acquired the property of the Pacific Coast Oil company it acquired all the valuable oil land owned by this company in Ventura county and elsewhere. A pipe-line forty-five miles long runs from the wells of the Pacific Coast Oil company in Ventura county down to the harbor at Ventura and here the oil is loaded on the tank steamers without difficulty. The Standard also has a pipe-line running from the wells of the Fullerton field to the wharf at San Pedro, and from this port tank steamers make regular trips to the Point Richmond refinery. The refinery as planned will have when completed a total still capacity of 20,000 barrels, and as it requires about two days to complete the process of refining the refinery may be said to have a capacity of treating 10,000 barrels of crude oil daily, or at the rate of 365,000 barrels a year.

It has been stated by certain newspapers that the refinery will

cannot be refined for illuminating purposes profitably. It requires too many barrels of the crude to make one barrel of the refined to make the manufacture of the latter profitable. It can be done. But the oil when made would have to be sold at a very high rate in order to make it profitable.

As has been stated before most of the oil treated in the Point Richmond refinery comes from the oil districts of Ventura and Fullerton. Now that the Standard has a branch pipe-line into the Coa-

and the bulk of this oil will be used for a fuel oil pure and simple. Much of it will go through the stills enough to "crack" it, and some of the lighter products drawn off, but the residuum will be used for fuel only.

The Standard refinery is now preparing to make almost every kind of oil that can be manufactured in an oil refinery. It will give and is giving attention more

Pacific Coast demand would have been impossible. Hence the increase in the capacity of the Standard's refinery here, and hence the great and costly preparations that have been underway for the last two years to rush to completion the great refinery at Point Richmond.

Nearly all the refineries on the Pacific coast turn out all that is left after the oils are extracted in the form of asphalt; which is coming into very general use for paving, roofing and other purposes. The Standard will not turn out its residue in the form of asphalt, but the residue left after refining will be placed on the market in the form of coke, which is very valuable for fuel, being superior to coal for use in grates and stoves, and being much cheaper in price as well as much more satisfactory in actual use, both as to the amount of heat obtained as well as in cleanliness, freedom from ash, etc. As the superior qualities of this coke are understood the demand for this product of the refinery is meeting with a ready sale, all of this residuum in fact, having been disposed of most satisfactorily to the company.

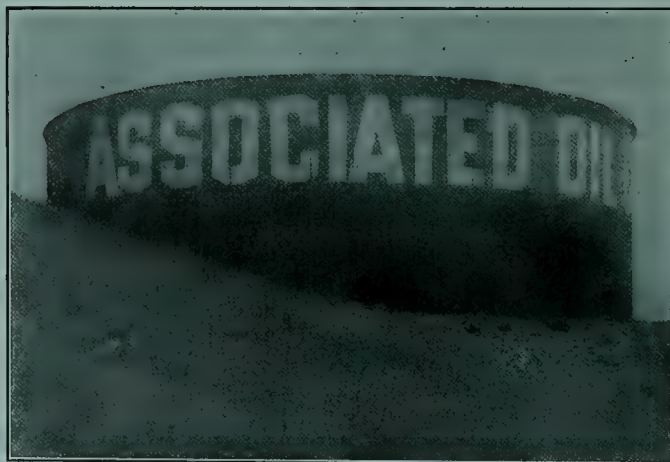
#### PT. RICHMOND'S FUTURE

By Lyman Naugle, Editor of Point Richmond "Daily Record."

A combination of unparalleled natural advantages, lying latent upon the shores of San Francisco bay only eight miles from the metropolis of the coast that is mono-



New School Building at Point Richmond.



Tank of Associated Oil Company, at Point Richmond.

linga field a large amount of refining oil will come from that district from the wells of the California Oil Fields Limited and other companies. This is a very fair oil for refining for illuminating purposes, much of it having a gravity of 26° and furnishing a high grade illuminant. The average oil from Coalinga is a high grade fuel oil of about 20° or 22°

and more to the manufacture of all kinds of oil but little of which has been manufactured on this coast heretofore. It proposes to turn out every grade of oil that it will pay to manufacture here, so that it will not be obliged to import but very little oil from the East. It is surprising how fast the demand for all the different grades of oil has increased on the





S. P. Temporary Depot at Richmond.

polizing the attention of the commerce of the world, with the simultaneous unfolding of discoveries and achievements that may be conservatively put down as a series of epochs in the history of the great golden State of California, all seem to have conspired to mark out for Point Richmond, (or the city of Richmond as it will soon be designated by its corporate name) a most magnificent future as an industrial and shipping center.

The new city began its existence three years ago, in the very beginning of the century. Its desolate slopes were suddenly awakened by the arrival of the great Santa Fe railway system, seeking terminal facilities for the exchange of commerce between the great continent behind and the mighty port in front. This being the first transcontinental competitor in railway transportation to arrive, the same may be classed as the first epoch in the chain of commercial development on the coast.

Before the new railroad had become settled in its adopted surroundings another mighty epoch in the history of California's development came sweeping on and made Richmond the central focus for its vast spreading industry and commerce. The one great hindrance to manufacturing industry—the dearth of fuel—was removed. Oil was gushing forth from thousands of successful wells and it was being turned into more than equal competition with coal. Suddenly the fuel question was solved for California for all time, and a vista of manufacturing industry opened up before the eyes of the people that had a most beautiful gold and silver lining. The Standard Oil company, the giant of the continent, located its immense refinery here and at once commenced construction on the

longest pipe-line in the world, reaching from the plethoric wells of the interior to the refinery on tidewater, and as we write the first oil is beginning to flow into the great storage tanks from this modern 'eviatian of transportation. Thus Richmond becomes the base of economic fuel. Other points must add the freight from Richmond to the first cost of fuel.

The next epoch that couples the destiny of Richmond to that of California and adds lustre to both was the achievement of bringing long distance electric power from the mountains, affording the most economical power for small manufacturing in the world, thus increasing the facility

est of the world's ships may come up close to shore in perfect safety, and where the hills of Angel Island stand as a sentinel and protector from the angry billows that roll in at the Golden Gate. Along and around this bold peninsula the Captains of Industry who are investing their millions here, are building a belt line railroad to connect the trunk lines conveniently with the water front and to afford switching facilities for the scores of manufacturing industries that are to be located thereon. The Southern Pacific company has purchased a body of land adjoining that of the Standard Oil company and have announced their intention of constructing a



McDonald Avenue, in Richmond.

for manufacturing on every hand. Within the last three months Richmond has been connected with the great system of the Bay Counties Power company and afforded equal opportunity with other sections on that score.

All these things, coming just at a time when the trade with the Orient is beginning to bud into a golden flower whose petals will transform the Pacific ocean into a modern Mediterranean, certainly lay a foundation for a mighty manufacturing city at Richmond.

Coupled with these great advantages is a combination of shipping facilities which seldom comes to the door of any locality. There are eight miles of most magnificent deep water front, where the large

freight mole for deep sea shipping. Their plans call for a solid mole a quarter of a mile wide and extending into the bay nearly a half mile. The company is now pushing condemnation proceedings on the water lots in front of their property, and the same is set for hearing in August.

These movements point with certainty to the fact that in the line of modern progress and economy the deep sea shipping is going to be done from this side of the bay, where ship and car can readily be brought together.

Richmond's manufacturing industries already comprise a stove foundry, two large brick plants, and a number of smaller factories. These are in addition to the large



Building Being Erected for a Stove Foundry.

and varied assortment of products turned out by the Standard Oil people and the great industry of the Santa Fe shops, the combined payrolls of which include an army of more than a thousand men. Among the industries in prospect is a large cotton factory, a pottery factory of considerable magnitude and a score of other industries of lesser note.

A manufacturing city will undoubtedly grow up here as a result of the combination of the advantages of location and incident noted above.

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New City of Richmond, from a Distance.



# THE STANDARD OIL COMPANY.

## Short Sketch of an Immense Business Enterprise.

**Not as Black as Sometimes Painted, but Black Enough for all Practical Purposes—Remarkable Growth of a Great and Powerful Corporation.**

In view of the fact that the Standard Oil company is doing business on an extensive scale in California it may not be without interest to take a brief look at the history of this gigantic corporation—the largest business concern probably in the world.

Without any intention of endorsing trusts and their methods, and without any attempt at pos-

has not yet taken away from men their prerogatives as free will agents with which they are supposed to be endowed by nature; but it has been known to take away from men the means of supplying themselves and their families with the necessities of life. It has been known to hound down and crowd to the wall some men who had the presumption to

were crude and the product turned out was of an inferior quality. These men in the Cleveland concern organized themselves in that year into the Standard Oil company. The young man whose energy had built up the business was John D. Rockefeller. Expansion was the policy of this shrewd young man and it was not long before other refineries in the country were approached with a view to combining their interests. The combination was effectual and the result, among other things less pleasant to talk about, was that the management was able to adopt improved methods, secure the most up-to-date appliances and turn out a better product at less cost to the manufacturer and consumer alike than ever before. The interstate commerce commission was not in existence in those days and the concessions to large shippers were a part of the

from being expensive was also dangerous; and in time came to own tank cars, and was in other ways equipped to handle the product of its refineries speedily and economically.

Dozens of men, seeing the success of the Standard Oil company, started in the same business, and most all of them after a brief business existence were obliged to "go to the wall." They were "frozen out," many would be pleased to have it understood, because of their antique methods and poor machinery. This is, no doubt, partly the reason, but more than that it was because their now powerful competitors had the advantage in railroad rates, established markets and the ability to "squeeze" if necessary.

A few—very few—of these independent refineries are still doing business, confining themselves, however, to the local markets. The moment an attempt was made to branch out, get into outside markets, or enter the open field of competition their doom was sealed.

The Standard was strictly in the refining business during the first few years of its existence, and not until a powerful move of the oil producers to control the output and dictate prices did the company venture into the field as a producer, and now this company is one of the largest producers of oil in the country; and if the independent producers declared to-day that the Standard should have no more of their oil, the company would still have a respectable production of its own to handle. In short, the Standard Oil company is not far from being entirely independent of the producers. If the producers were as independent of the Standard Oil company that university of Chicago might not be as well endowed as it is. Mr. Rockefeller very generously donates a million to-day, but it is very likely that tomorrow the price of crude oil may drop off a half a cent a barrel. Mr. Rockefeller builds a memorial chapel to-day, but yesterday he averaged up the loss of thirty or forty thousand barrels of oil destroyed by fire, and charged it to the producers.

There are many ways of being a large-hearted and generous man, if one has the means of arranging things to suit one's convenience.

The low price of crude was, of course, attributed to the Standard, because this company had become practically the only buyer of oil, and when it established a price the producer was obliged to accept that or allow his oil to go to waste. Notwithstanding the "general kick," the producers kept on drilling until at one time 40,000,000 barrels were above ground. In order to take care of this the Standard erected hundreds of immense storage tanks for the sur-



The Standard Refinery, from the North.

ing as apologist for the Standard Oil company, it may be said that very often this company has been misrepresented and misunderstood. It has been written down as a vicious, grasping combination of thieves and an uncompromising enemy to justice. The men who control it have been recorded as monsters wearing horns and tails with spikes at the ends of them. It has become a fixed habit, almost, with men in the eastern oil regions to place at the door of the Standard Oil company the blame for every misfortune that takes men from a new baby not wanted to a poor potato crop. If a wild-cat well proved a failure, if a man made a bad turn in the "bucket shop," or if the horse he was betting on went wrong, the Standard very likely came in for a round line of denunciation. Now in common fairness it must be said that the Standard Oil company

start in the same business in which it is engaged. But those things are merely incidents in the history of the Standard Oil company.

Those who fail are fond of placing the blame at some one else's door. The Standard Oil company had energy, experience and money. These things, especially the latter, always win against sloth, inexperience and limited capital.

Whatever the cause, the effect is a living tangible fact that the Standard Oil company to-day controls the illuminating oil business of the world and is in a position to overbid and undersell all competitors.

In 1870 there was a young man in Cleveland, Ohio, who had several other young men associated with him in conducting a little refinery similar to several others throughout the country at that time. The methods of refining

railroad business, and any concern which could throw to a railroad any considerable volume of business secured rebates which assisted materially in its profits.

This rebate system, by the way is not a thing of the past; and is one of the most important factors in the wonderful success of the Standard Oil company. However many laws there may be against discrimination in freight rates, they are evaded in one way and another, and it may safely be said that the Standard Oil company is to-day able to ship its goods at a lower rate over most of the important railroad lines than are men doing a smaller business. The words "common carrier" sound well, but in practice the small shipper has not the advantage which the large shipper has.

The Standard gradually did away with the plan of shipping in barrels and cases, which, aside



plus, which they were unable to handle in their refineries and for which they had no market. The Producers' Protective association organized to fight the Standard, ordered a shut down in 1887 which should have brought the Standard to its knees, begging for oil, but the producers were not as well organized as the Standard Oil company, and the move was only a partial success.

While large corporations are reported to have no souls, it is not entirely just to rate them all as robbers of widows and orphans. The Standard fought all opposition and in a majority of cases won, in a large measure, because of methods which some people might call "shady," but which were within the letter of the law.

Business is simply a matter of profit and not of sentiment, and one feature of all business is to beat a competitor, or if necessary, to crush him. The Standard has always been very successful in these things, as a long list of "retired" business men can testify. In retiring these merchants the Standard may have resorted to sharp practices; but whether they did or not will probably never be known, for the reason that the Standard Oil company's business is no one else's, not even the court's.

The Standard became powerful enough to eventually extend its markets to Europe, and there fought Russian oil to a standstill. This expanded trade soon necessitated the erection of refineries at seaboard, and the plan of refining the oil inland and shipping it by rail to the coast soon made way for the plan now in vogue of piping the crude to the coast and refining it there for foreign shipment, which is found to be much cheaper.

In the Pennsylvania, Ohio, West Virginia and Indiana oil fields a net work of pipe lines cross and recross in every direction through which the oil is taken from the wells and carried to the trunk lines. All the operator has to do is to strike the oil and the Standard is after it at the well, and this company gets the oil because it is on the ground, and to use a common expression, "has a cluch" on it. The market price is paid, but 2 per cent of the oil is taken by the buyer to "cover leakage in transportation, evaporation, etc." The business continued to grow. The company was doing business in several states and the interests became so diversified that a half dozen or more corporations under practically the same management resulted.

In 1882 the entire stock of these corporations was owned by forty men. In that year nine trustees were appointed whose duty it was to conduct the affairs of the different concerns. This was the beginning of the Standard Oil trust

which has for years furnished such a rich subject for books, newspaper articles and socialistic speeches. The trust continued in existence only ten years, when it was dissolved. During that time stockholders had increased to 2,000. These 2,000 stockholders included many independent refiners who had been forced into the fold and given stock in the big concern to an amount equal, in the opinion of the Standard, to the value of their several refining plants.

The Standard Oil company is at present in a position to laugh at all attempts at opposition. Wagons labeled "Standard Oil company" may be seen in the streets of every city and hamlet in this country as well as in many others, peddling out light for the home.

The Standard evidently thought it would pay to come to California, and it is here. Although its record has been to make or break at will, as its interests dictated, it began business in this State under circumstances which appear, at

able them to buy oil and hold it for an increased market. Consequently when companies came to the Standard and offered to sell 20-cent oil for 15 cents a barrel or even less, the Standard has accepted these offers, in many cases.

In order to do this the Standard has been compelled to erect a vast number of oil tanks averaging 35,000 barrels capacity each.

It has also thrown up earthen reservoirs and roofed them over. These reservoirs will contain over 400,000 barrels each. Including the tanks and the reservoirs, the Standard has in Kern county, in the Kern River and McKittrick fields a storage capacity of nearly 3,000,000 barrels, and this storage capacity alone represents an outlay of fully \$1,000,000.

The erection of these storage tanks and reservoirs was the first work commenced by the Standard when they started in to build up and furnish a market for crude oil in California.

All the oil placed in the Standard's tanks in Kern River to be sent through the pipe-line or to

consumption of oil in and about Point Richmond. These are:

First. The success of the pipe-line means a great lessening in the cost of transporting the oil from the fields of Kern county and Coalinga; and

Second. The ease with which the oil can be supplied to users of fuel oil at Point Richmond from the tanks of the company at that place.

It costs 42 cents a barrel now to transport the oil in tank cars from the oil fields to the bay. By means of the pipe-line this cost of 42 cents a barrel will be decreased to not to exceed 10 cents; perhaps not to exceed 5 cents. More likely the latter than the former.

Let us figure this out for a minute and see what it costs the Standard to pipe the oil from Bakersfield.

The pipe-line and tankage connected with it has cost the company not far from \$2,500,000. Some say more, some less. We think less rather than more. But call it \$2,500,000 for the sake of argument.

This means at 6 per cent interest, a cost of \$12,500 a month.

There are ten pumping stations requiring say the services of five men each, who average not to exceed \$90 a month. This means a cost of \$450 a month at each station, and as there are ten stations the whole cost is \$4,500 a month for wages.

Saying it costs the Standard 20 cents a barrel for its oil (which it does not) the total fuel bill for the ten stations and other incidentals will not exceed \$1,000 a month.

Now let us tabulate these items as follows:

Interest, per month.....	\$12,500
Wages, per month.....	4,500
Fuel and incidentals, per month.....	1,000
Other expenses, per month.....	2,000

Total monthly expenses.....\$20,000  
Now double this for wear and tear and further incidentals and call it \$40,000.

This is figuring that the Standard will put 10,000 barrels a day through the line. As a matter of fact the line will have a much greater capacity than 10,000 barrels a day. It is sufficient to say that in one run of twelve hours the company sent through one of the sections in Kern county 4,700 barrels of heavy oil, and that too at a pressure of only 200 pounds, when the line is supposed to sustain a pressure of at least 600 pounds. (It stands up under an 800 pound pressure.)

Now 10,000 barrels a day means a total of 300,000 barrels a month. If the Standard had to pay the railroad for transportation at the rate of 42 cents a barrel it would have to meet at the end of the month a nice little bill of \$126,000.

By sending the oil through its own pipe-line, and doubling up all the expenses that one can naturally think the total cost is only \$40,000, or at the rate of a little



Building of the Point Richmond "Daily Record,"  
Lyman Naugle, Editor.

least on the surface, of value rather than otherwise, to the producers. A strong organization has been effected among the latter and the Associated Oil company has started out at a good pace. There is competition and keen competition too. It will be interesting to watch developments; but the producers can rest assured that the policy of the Standard will be to so regulate the price of oil to the producers as to yield them such a profit as will encourage them to continue production.

The low price of oil that has prevailed thus far is not due to any "beating down" policy of the Standard, but to the competition of the producers themselves. Need of ready cash has often compelled oil companies and private operators to offer their oil for sale when the market was overstocked, and in order to sell their oil they were compelled to offer it at much below the prevailing market price. The Standard Oil Company has been practically the only concern which has sufficient storage to en-

be transported in tank cars is purchased from the producers. No oil is produced by the Standard here. The company does not own a foot of land in Kern county for producing purposes. It prefers to buy oil, leaving the actual production of oil to the individual operators. The company has not fixed the price of oil to the operators, but thus far the latter have fixed the price themselves. When the latter have asked such a price as to warrant the Standard in buying and storing the oil for future delivery their offers have been accepted. At present the tankage capacity of the Standard in Kern county is taxed nearly to the limit, and it is believed that existing contracts will enable the company to keep its tanks nearly full in spite of the vast amount of oil drawn from them daily for the pipe-line and tank cars.

Attention should be paid to two important facts concerning the effect the success the pipe-line will have on the consumers of fuel oil in the State generally and more especially as regards the



over 10 cents a barrel.

These are cold facts and figures. The expenses are much higher than they ought to be reckoned at. But figure it any way you choose you cannot make the Standard pay over 10 cents a barrel for all the oil it pipes from Bakersfield and Coalinga.

This means that the Standard has the upper hand in any competition that any company or any refinery, or anyone in the oil business may set up. It also means that the Standard has the power to crush any competitor that it sets out to crush. It has done it before, and if it does it again it is not to be supposed that anyone in the Standard is going into mourning about it.

With its immense storage capacity, with its pipe-line and its refinery, with its established market for oil, with its contracts for the purchase of oil extending over

a long period of years, with its hundreds of wells producing a fine quality of refining oil, and with the great Coalinga field at the very door of its refinery with the advantage of being able to get its oil to the bay at one-quarter the expense that other companies have to pay the Standard Oil company is now in a position that enables it to command the oil industry of the Pacific coast and of the Pacific ocean.

It has cost the Standard a pretty penny to obtain its position, but it is now in the saddle, and it looks as if it knew how to ride the animal all right. It don't need to be tied on either.

Some very wide and wild figuring has been done in order to make the expenses of the Standard in the transporting of the oil by pipe-line as heavy as possible. As given the figures show an ex-

pense of 10 cents a barrel.

As a matter of fact the total expense does not exceed 5 cents a barrel. We did not want to say so at the start for fear of shocking some one without giving warning. Now that the way is prepared a little the truth might as well come out. It does not cost the Standard 5 cents a barrel to get the oil from Bakersfield to Point Richmond by its pipe-line. Figure on it yourself, and write us about it.

The second point we want to bring out is this:

The receiving tanks at Point Richmond are so situated that the oil can flow by gravitation to any part of the peninsula, and any manufacturing company that chooses to locate there can have the advantage of having its oil piped direct from the tanks of the Standard to its own fuel tanks. That means the cheapest rates for

fuel on the coast.

Furthermore: The Belt Line road will handle all the products, afford wharfage and storage facilities, and give any large manufacturer every facility for doing business that can be found on the Pacific coast.

As matters stand now no place on the coast presents such inducements for the manufacturer and shipper as does Point Richmond.

This is mainly due to the Standard Oil company.

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Yes, we had a fire in the new "fire proof" office building in which our offices are located, but little damage was done and we are receiving many orders every day for oil and mining stock.

We can sell you oil stocks at a few cents a share in companies that are drilling day and night, that already have produced the highest grade oil ever found on the Pacific Coast.

The companies operating near the ocean, at Half Moon Bay, San Mateo county, Cal., are producing from 48 to 55 gravity oil, which has never sold for less than \$1.50 per barrel at the well. The most prominent oil papers published in the country, as well as the most practical and experienced oil men, have stated that Half Moon Bay will prove to be one of the greatest oil fields in the world.

We have stocks for sale at a few cents a share that within a few months may be worth dollars a share.

Remember we have a

### TRUST FUND.

We sell stock to develop oil and mining companies, also dividend paying stock. We hold as trustees for oil and mining corporations almost 2,000,000 shares of their capital stock in a TRUST FUND. If any company fails, we, as trustee, take up its stock and issue to its stockholders stock of the successful companies from the Trust Fund. Thus a buyer of stock of any company has an interest in a number of developing oil and mining properties. Stockholders have a pro rata interest in the enormous Trust Fund created for their protection. As trustee and fiscal agent we control the Trust Fund absolutely that guarantees protection to stockholders in each individual company. Maps, charts, printed matter sent on request. Correspondence solicited.



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The Omaha Gold Mining Company is one of the best. Low capitalization of \$100,000; two quartz claims; ample wood and water on the property; no debts; close to railroad; company officered by bankers and practical mining men of San Francisco; no salaries to officers; no promotion stock; day and night forces at work on three tunnels taking out wonderfully rich ore, more than enough to pay all expenses of operation. The property was acquired with a two-stamp mill, which is to be replaced by a ten-stamp mill.

Less than \$10,000 worth of stock will be sold, which means such a small amount of stock will earn enormous dividends. Dividends of not less than 1% will be paid, beginning with October. The company will pay not less than 5% per month beginning with January, when the ten-stamp mill is in operation.

A few shares left at 5c per share; when sold the price will be doubled, possibly trebled. If you want dividend-paying stock, remit without delay.

DEBENTURE SURETY COMPANY (Inc.)

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Mention this paper.



## HIS FIRST WELL.

Interesting Experiences of an Old Timer in West Virginia.

Captain A. Allen, one of the old-timers in the oil and gas business, was in the city yesterday on his way from Pittsburg to his present home at Inez, Martin county, Ky., and talked interestingly of the developments in the lower end of this State along the Kentucky border.

Captain Allen is the man who in '66 drilled the first well in the Burning Springs region and the drill going down into the famous "oil rock" brought a 600 barrel gusher. Shortly afterward, in the early part of the same year, a 2,000 barrel gusher was also struck and since then the territory has been a good one. For 25 years the captain has been on the Kentucky border, and in speaking of the development there said: "There is a wonderful amount of gas in our section, the Triple State Gas company has 25 wells which average between 400 and 600 pounds rock pressure. They pipe the product 64 miles to the Ohio river by a 10-inch line and Catlettsburg, Iron-ton, Kenova and other towns for 10 and 12 miles up and down the river are supplied by them. There is lots of coal land on the Big Sandy, but capital is very much needed." Asked about the Hatfield-McCoy feud, he said that they are not what they have been painted by yellow journals, but are nevertheless bad when mad and full of moonshine. "Their friendships are sacred and enmities bitter, but though I have slept many a time in the house with 'Devil Anse' Hatfield, I have never dreamed of harm," he said, as he lit another cigar and crossed the other leg.—Parkersburg Journal.

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7:30 A. M.—\*BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.

9:30 A. M.—\*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

9:30 A. M.—\*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

4:00 P. M.—\*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

8:00 P. M.—\*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\* Daily      † Mondays and Thursdays  
                 † Tuesdays and Fridays.

Personally Conducted Parties for Kansas City, Chicago and East leave on Overland Express Monday, Thursday and Saturday at 8:00 p. m. Ticket Offices, 641 Market Street and in Ferry Depot, San Francisco; and 1112 Broadway Oakland.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, July 22nd:

ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.

194 at 24..... \$ 46 56

CHICAGO CRUDE.

500 at 20..... 100 00

## FOUR.

500 at 69..... 343 00  
100 at 70..... 70 00

## HANFORD.

17 at 1 19..... 2,023 00  
1/2 at 120 00..... 60 00

## HOME OIL.

67 1/2 at 3 00..... 2,025 00  
100 at 3 00 (S 90)..... 300 00  
300 at 3 05..... 315 00  
100 at 3 10..... 310 00

## INDEPENDENCE.

1,500 at 17..... 255 00  
2,000 at 17 (B 5)..... 340 00  
500 at 17 (B 30)..... 85 00

## KERN.

200 at 5 37 1/2..... 1,075 00  
25 at 5 50..... 137 50

## MONARCH.

300 at 54..... 162 00  
150 at 55..... 82 50

## MONTE CRISTO.

700 at 95..... 665 00  
400 at 1 00 (B 5)..... 400 00

## OCCIDENTAL OIL.

500 at 18..... 90 00  
100 at 19..... 19 00

## OIL CITY PETROLEUM.

3,000 at 30..... 900 00  
1,400 at 31..... 434 00  
600 at 32..... 192 00

## PEERLESS.

85 at 14 00..... 1,190 00

## REED CRUDE.

4,900 at 40..... 1,960 00

## S. F. &amp; MCKITTRICK OIL.

75 at 2 50..... 187 50

## SOVEREIGN.

600 at 39..... 234 00

## STERLING.

50 at 3 10..... 155 00

19,571 1/2 Shares Amount \$14,158.06

## CALIFORNIA SHIPPING CO.

50 at 25 00..... 1,250 00

50 Shares Amount, \$1,250.00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	
Apollo.....	.50	
Asso. Oil Co Stk. Tr.		
Certificates.....	.23	.25
Aztec.....	.77 1/2	
Bay City.....	.15	
Bear Flag.....	.15	
California Standard.....	.10	
Caribou.....	.90	
Central Point Con.....	.85	
Chicago Crude.....	.19	.22
Claremont.....	.35	
Esperanza.....	1.05	1.30
Fauna.....	.04	
Four.....	.68	.71
Fulton.....	2.85	
Giant.....	.20	
Hanford.....	119.00	124.00
Home.....	3 00	3.05
Homestake.....	2.00	5.00
Imperial.....	20.00	
Independence.....	.17	.18
Junction.....	.21	
Kern.....	5.25	5.50
Kern River.....	12.00	
Lion.....	.05	.06
Monarch of Arizona.....	.54	.55
Maricopa.....	.10	
McKittrick.....	.17	.30
Monte Cristo.....	.95	.97 1/2
Nevada.....	.31	
Occidental of West Va.....	.20	
Oil City Petroleum.....	.30	.32
Peerless.....	14.00	
Petroleum Center.....	.05	
Pittsburg.....	.40	.45
Piedmont.....	.10	
Reed Crude.....	.40	.41
S. F. & McKittrick.....	2.25	2.75
San Joaquin O. & D.....	5.75	
Senator.....	.68	
Shamrock.....	.15	.23
Sovereign.....	.37	.39
Sterling.....	3.00	3.10
Superior.....	.04	
Thirty-three.....	8.00	
Toltec.....	.23	.25
Twenty-eight.....	5.00	
Union.....		
United Petroleum.....		
West Shore.....	2.80	
Western Petroleum.....	.13	
Wolverine.....	.25	.60

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## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### COALINGA.

Well No. 8, of the Twenty-eight Oil company was finished on the 18th, and it rivals any of the other wells of the company in its production, averaging nearly 200 barrels per day.

The Union pipe-line has connected the Stockholder's Oil company's tank on section Twenty-eight, and are now receiving their oil from well No. 1 which is being pumped to deliver oil for the first time since its completion some months ago.

W. L. Stewart, general manager of the Union Oil company, was in town and has made a trip through the field with J. H. Larson, the company's field manager, last week. The company has only recently begun drilling in this field and are down to a depth of over 400 feet with its first well.

R. C. Baker, who is drilling on his second well and who has also been awarded the contract for the drilling of well No. 1 for the Pleasant Valley Stock Farming company on section 6, has just returned from a trip to the Wyoming field where he has disposed of his interests to give more of his attention to this field.

The Octave Oil company that recently purchased the property belonging to the Elk Oil company, on section 22, shipped in a rig and will commence drilling a well just as soon as the rig can be set up. Some of the gentlemen interested in this new company are Messrs. Whittier, Stewart and O'Donnell. Mr. O'Donnell will have charge of the operations in the field.

A gang of men have been at work for the Pacific Coast Oil company laying a pipe-line connecting section 28 with the line that is now carrying the oil from section 27 to the storage tanks on section 21. The first shipment of oil from the Coalinga field into the main pipe-line to Mendota was made two weeks ago and as far as can be ascertained the line works to the utmost satisfaction.

#### COLUSA.

The Williams company is moving its rig to the Van Gilt lease.

The Farmer reports that several parties have obtained leases on lands in the mountains near Williams.

Owing to caving in the Bear Valley company's well the hole has been reduced to 4½ inches. An assessment is to be levied to prosecute the work.

#### FULLERTON.

Shipments of Fullerton oil are being made to refining plants, where considerable light oil is used in the manufacturing of light products, such as distillate, common and high-grade engine distillate.

Owing to the almost unlimited market for the light-grade product, all of the big operators are exerting their best efforts to increase their production. Several new wells are about due on other properties.

A new gusher tried to do its worst Friday on the Santa Fe lease, and for a

while made things lively. Shortly after 4 o'clock Friday morning well No. 32 came in with a rush, and for several hours spouted oil at the rate of 400 barrels a day. Considerable gas accompanied the flow. The oil is of a light gravity, and remarkably free from sediment. The strike was made at a depth of 7,463 feet, and the well has been on the drill for several months. The new producer is the second big one brought in recently.

#### HALF MOON BAY.

Messrs. Nellis & Smith of the R. H. Herron company spent Sunday visiting the oil properties at Half Moon Bay.

Mr. J. E. Kerr of San Francisco, who is carrying on operations as general manager for a number of companies operating at Half Moon Bay spent three days upon the property last week.

The Tesla Oil company, in which Mr. Tre dwell is interested, located about two miles east of Half Moon Bay are now putting in 5½ casing with the well over 1,200 feet deep. They have very good indications of high grade oil.

Messrs. Turner and Bots of Los Angeles, who are interested as officers and owners in the High Gravity Oil company are pushing work day and night upon their well that is being drilled and they now have the 5½ casing down to about 1,200 feet.

The Wisconsin company is pushing work day and night to get their test well as deep as possible, which is now to exceed 1,340 feet. The well is now full of oil which seriously interferes with drilling, hence they are cutting off all the oil at the depth mentioned in order to successfully carry on their work.

#### KERN

It is reported that the Chanslor & Canfield oil people, who have properties in operation in nearly every field in Kern county and elsewhere, are about to enter the Devil's Den district in the extreme northern portion of the county near the border of Tulare county, where Visalia people are now holding property.

Gordon Bradley, Assistant Secretary of the Peerless Oil company, says the production of the Peerless wells has increased rather than decreased ever since they were put on the pump, some of them three years ago. The wells are kept in first-class condition, are cleaned out regularly, and the pumps are kept in order. There is no trouble from water.

McKittrick is now the most active of the west side fields, not much being done in the others at present on account of the operators waiting for the completion of the Jewett & Blodgett pipe-line, which will give them an outlet. At McKittrick business is very active and about twenty-five strings of tools are reported to be running. These are located both in McKittrick district proper and towards the northern extremity as far as the Temblor district. Large amounts of oil are being shipped by the various companies.

The Californian says that B. M. Berry, who has just returned from the Cuyama and who expects to return to that sec-

tion within a day or two to make some further locations, is of the opinion that the land is certainly petroleum bearing, and that the field will become an important one when it is developed. In discussing the matter, Mr. Berry said: "Of course oil is where you find it, but the indications in the Cuyama are particularly good and I look to see some extensive work done there in the future. If the Midland Pacific is built, it will help to develop the field, but if not a pipe-line to tide-water is entirely feasible."

The Bakersfield Californian says that one of the absurd rumors which has been going the rounds on the street is to the effect that the Standard has decided to boycott the Sunset field because it could not obtain oil at the price it offered, the producers wanting 35 cents. The rumor doubtless started from the report circulated some time ago that the Standard would build several large tanks at Sunset, but so far failed to do so. It is safe to say that whenever the production warrants it the Standard will be on hand. It has never failed to be on the ground when there was any oil business doing and it is not likely that Sunset will prove an exception to the rule. There is also a report that the railroad will not be extended at Sunset on account of this alleged action of the Standard. Well informed oil men do not credit the alleged connection between the railroad and the Standard and say that if the road does not build it will be because the construction of the Jewett & Blodgett pipe-line, now assured, will render it unnecessary by bringing the oil directly to the present terminal for shipment.

Lively times are expected in Sunset, and there will be plenty of oil ready for the Jewett & Blodgett pipe-line, which will be completed in December. President Denicke, of the California Oil company, is awaiting the completion of this line with great impatience, as from lack of transportation the company has been unable thus far to market the vast amount of oil which could easily be obtained from its flowing wells, equal to the best, if not the best wells in the entire Sunset district. This is one of several companions in Sunset that will be able to declare dividends as soon as the pipe-line is ready for business, and the California Fortune has plenty of money in its treasury to drill as many more wells as will be needed. The work on the reservoirs is to commence at once. The trenches for the pipe will be dug at once to be ready in time for laying the pipe as soon as it is received, which will be within ninety days, no factory being prepared to furnish the ten-inch variety—of which the main line will be constructed—in less than eight weeks. The feeders will be built of six and eight-inch pipe—about four miles of the former and a mile and a half of the latter. The owners of the line figure on being able to move oil by the middle of December, but the entire line will probably not be completed before January. The main line will be six miles in length. Besides the trunk line and its feeders running to Midway there will be also a six-inch branch from the reservoirs southeast to the properties of the Navajo and others. Extensions will be made to other parts whenever necessary. As already published the line with its branches now reaches practically every producing property in the field. In spite of the comparative quiet in the fields recently they are by no means dead and every train from Sunset brings in good quantities of oil and large numbers of men are employed on the various properties. When the great pipe begins to work it is certain that the

Santa Fe will have to run a daily train on the Sunset line, as even under present conditions the tri-weekly trains are sometimes hard pressed to handle the business.

#### MONTEREY.

Graham and Kellerman of the Alvarez oil well, having had considerable trouble in keeping their drill at work

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through lack of facilities for getting wood for fuel, have changed their engine to an oil burner, arranged for a supply of crude oil from Coalings and given a contract to Johnny Campbell to haul the liquid fuel. The two tanks arrived this week.

#### MENDOCINO.

The Russian River Oil and Development company are also at work and are now down about 200 feet. No water has yet been struck in the well.

The Ukiah Oil and Improvement company have their well down about 350 feet. At 325 feet the drill struck a vein of coal four feet thick. Mr. Youle, the veteran oil man in charge states that this is one of the best indications yet found. The drill is being followed up with casing as fast as possible.

#### MARIN.

The Bolinas Bay company is now down over 1,800 feet on well No. 2, and have ordered machinery, etc., to start on well No. 3 immediately.

#### SAN BENITO.

The material for an oil derrick has been hauled to the Cowden ranch, south of Hollister, where operations will soon commence for drilling an oil well on that place. Colonel Beane will have charge of the outfit. He has the most sanguine hopes of developing an oil territory in this section.

#### SANTA MARIA.

L. A. Crandall, formerly superintendent of the Western Union Oil company's holdings at Careaga, states that he has succeeded in interesting some of the largest oil operators on the Pacific coast in the Santa Maria oil field. The capitalists involved are putting up their own money and as a matter of fact there is no stock for sale. Development work will begin at once. The property consists of 500 acres adjoining the famous Pinal land.

The Pinal company is not letting any grass grow under its feet, and like progressive business men is pushing its oil interests right to the front. Since striking oil in such quantity in well No. 3 a fourth well has been sunk which is

down something like 500 feet already. A pipe-line is in course of construction to Graciosa from which point the oil will be transported by the Pacific Coast railroad to Fort Harford. From this latter point it will be shipped by steamer by the contracting consumers. The Pinal company is also contemplating the construction of a pipe-line from the wells to the Southern Pacific tracks about five miles distant, and to that end surveys will shortly take the field. It has also been hinted, says the Santa Maria Times, that it is within the range of possibility that the company may supply the towns of Santa Maria and Guadalupe with gas, as at present well No. 3 alone has gas enough going to waste to accomplish this. The board of directors held an important meeting on Monday last, and although no information was given out, it is known that a representative of one of the largest oil companies on the Pacific coast was present. The presumption is that in view of the high-grade of the Pinal product and the ease with which it can be brought to tide-water, the various transportation companies vie with one another in securing the oil of this valley, especially where the only labor involved is to turn on the faucet and let it run.

#### WYOMING.

The casing for the Betty's oil well is reported now enroute for Evanston. The well is about 550 feet deep.

Mr. James J. Hardin returned from Chicago last Monday and work on the No. 2 Jager well will be commenced at once.

R. V. Ellis returned the first of the week from the Kansas field and says he is well satisfied with his prospects in Wyoming.

Crane & Co. are kept busy these days filling orders for drilling machinery. Several carloads have been shipped to Spring Valley the past week.

After a ten day's fishing job the Atlantic & Pacific got the string of tools out of well No. 3 on 22, 14-118 last week. They expect to strike oil in well No. 2 at any hour.

The Standard Reserve Oil company

have completed their first rig near LeRoy and will commence drilling at once. Several more rigs will be installed at once by this company.

Bids for the building of two Standard rigs have been asked for by the Ohio-Wyoming Oil company, the rigs are to be placed on the company's holdings near the Bettys property.

Mr. A. B. Butler, President of the American Consolidated Oil company, has been in town the past week making plans for extensive development of their property. Several rigs have passed through here this week for the company at Spring Valley.

What is considered the best oil strike in the Uinta county oil field was made by the Atlantic and Pacific Oil company July 18th in their well No. 2 on section 22, 15-118 near Spring valley at a depth of 1,680 feet. This well is located about 500 feet west of well known as the "Ellis" well, which was brought in last fall by the same company, at a depth of 1,200 feet. Up to July 18th it looked very much as if the oil stratum had been missed in well No. 2 owing to the greater depth, but telephone communication with the manager of the company gave the news that oil had been encountered and next morning the sand was drilled in and the oil rose 450 feet in the casing, flowing in at the rate of five barrels an hour. This flow would be many times increased if the wells were shot but this does not seem to be the policy of any of the companies for obvious reasons. The greater depth of well No. 2 is accounted for by the great pitch of the oil stratum at this point, well No. 1 being located on the extreme apex of the anticline. The quality of the oil is extremely fine having a paraffine base and a gravity of 45°. It is expected that oil will be struck in well No. 3 owned by the same company within the next ten days. Extensive preparations are being made by other companies to develop their property. This makes seven producing wells in the Uinta field.

During the month of July the subscription price of the PACIFIC OIL REPORTER is reduced from \$2.50 to \$1.50 a year.

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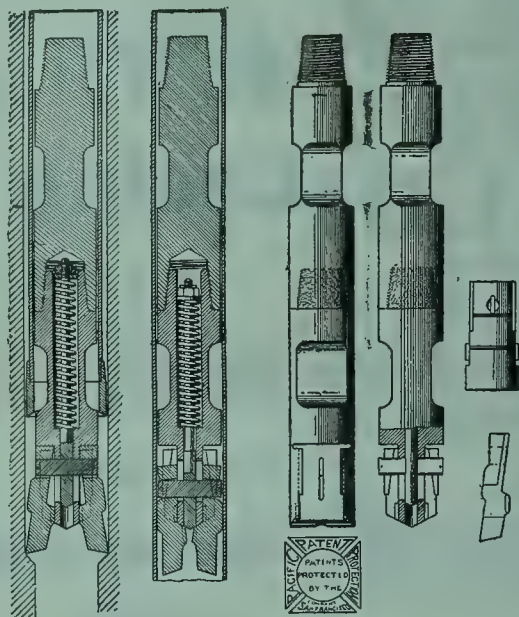
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SAN FRANCISCO, CAL., SATURDAY, AUGUST 1, 1903.

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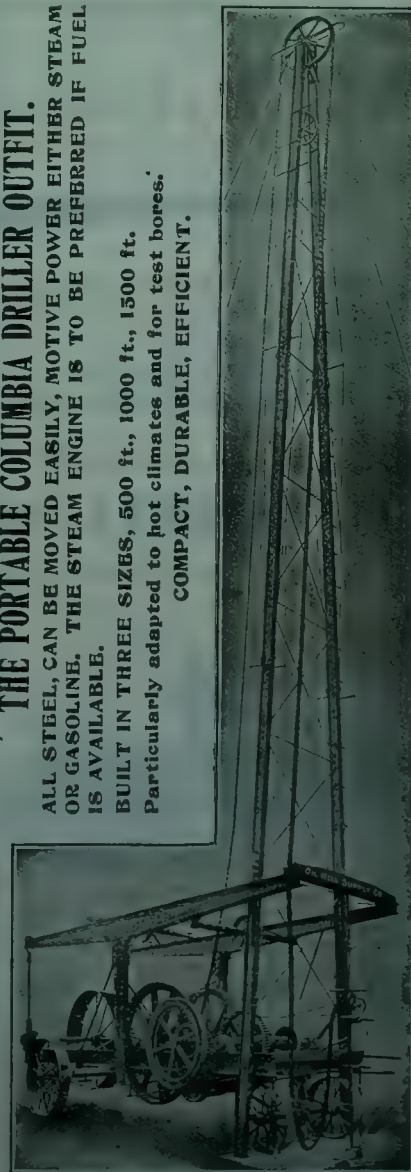
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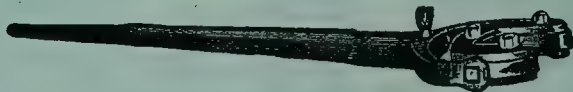
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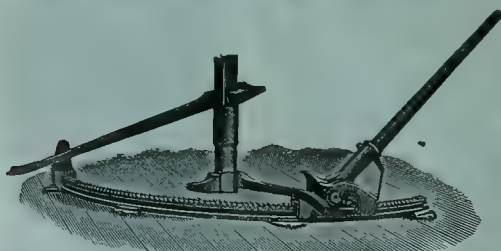


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# PACIFIC OIL REPORTER

VOL. 4. No. 39.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 1, 1903.

PRICE, TEN CENTS.

## THE OIL INDUSTRY.

### California's Petroleum Business Regarded from a Commercial Standpoint.

Valuable Paper Read Before the Annual Meeting of the Pacific Coast Gas Association by Dr. Deane, of the Petroleum Miners' Association.

Oil in commercial quantities has not been discovered north of Fresno county. The principal oil producing districts are in Orange, Ventura, Santa Barbara, Kern and Fresno counties. In and around the city of Los Angeles there are almost 1,000 wells, but the output from them is very small and will aggregate less than 1,000,000 barrels a year. The great producing districts in Kern county are, the Kern River, Sunset and McKittrick districts, in Fresno county the Coalinga district, Fullerton in Orange county, Santa Maria in Santa Barbara county. These districts, excluding Los Angeles, have over 1,000 wells, and if they were being pumped to their full capacity they would produce over 18,000,000 barrels of oil per annum. A well to be of commercial value must give at least 50 barrels a day, of course I mean oil of from 14 to 25 gravity; higher gravity oils are not used for fuel purposes but are refined and more valuable.

A very good well is 100 barrels a day. There are many that produce 200 barrels, and a few that produce 500 barrels, FOR AWHILE.

Most people not acquainted with the oil business imagine that a hole is drilled into the ground until you meet a lake of oil. This is a mistake, as the oil is contained in a sand. The hole is drilled down and cased with 11 5/8-inch, 9 5/8-inch and 7 5/8-inch casings, until the sand is reached; then the casing is carried down through the sand and landed on the clay beneath. Oil sand can be from 1 foot to hundreds of feet in thickness. After the casing is landed, it is perforated by small holes about an inch in diameter, all the way up to the top of the sand. The oil flows into the casings through these holes and is pumped out. If there is sufficient gas, it will throw the oil out above the casing, and it is then called a "gusher." As the oil is pumped out of the well, it is deposited in an earthen reservoir, (where the water and sand is

separated from it, by the action of gravity) and then allowed to flow into tanks, from which it is taken to market, by railroad tank cars or pipe-line. These cars are 150,

barrels; One acre of land with sand 300 feet thick contains 466,200 barrels; One acre of land with sand 400 feet thick contains 621,600 barrels.

The quantity of oil contained in the sand, according to the best experts, is considered to be about 25 per cent. Twenty per cent of this ought to be recovered. Twenty acres, therefore, ought to give in the neighborhood of 10,000,000 barrels of oil, if the sand is 300 feet thick. We hear a great deal about oil lands and their values; these lands are divided into proven and wildcat lands. By proven lands we mean, that if you sink a well you will certainly get oil; wildcat land is

considered absolutely proven. In other words, where you will be sure to get oil if you sink a well.

A very conservative estimate of the quantity of oil in those 4,000 acres is one thousand million barrels. The depth of wells varies in different districts. In this field the wells are from 850 to 1,050 feet.

The cost of sinking wells varies largely in the different districts, due somewhat to distance from railroad and other causes, but wells of 1,000 feet deep can be sunk in the Kern River district, including the casings, for about \$3,000 a well; that is, a contract for ten wells can be made for \$30,000.

This does not include putting the wells on the pump; that would probably cost \$1,000 per acre more. Fifty thousand dollars should equip ten wells ready for oil delivery.

The gravity of the oil varies also in the different districts. Coalinga and Fullerton districts will be in the neighborhood of 25 to 30 gravity, and is used largely in the making of gas, I understand. The fuel oil of Kern River, Sunset and Midway, and also of the Los Angeles fields, is only about 14 to 16 gravity, and is used largely as fuel and in the making of asphalt.

The consumption of oil has increased by leaps and bounds in a most astonishing degree on the Pacific Coast. The following table is approximately correct:

Consumption in 1900...	4,000,000 barrels
" " 1901...	8,000,000 barrels
" " 1902...	13,000,000 barrels
Consumption in 1903, present year, will be over	20,000,000 barrels.

The present production of the Kern River district is about 10,000,000 barrels per annum, and at this rate of production will last for a hundred years; the balance is produced by the other districts named.

The district of Baku, in Russia, which is about half the size of the Kern River district, has produced for the last fifteen years in the neighborhood of 75,000,000 barrels per year.

Now, as to the value of these lands: They are selling at the present time at a ridiculously low price, and, strange to say, the people of California are somewhat suspicious of them, even at present prices. I mentioned to a friend on the street a few weeks ago that I had bought twenty acres of land in the Kern River district at \$4,000 an acre, and he looked at me as if I was crazy, while the facts really are, that this land selling at that price, can be made to produce oil for the next twenty-



DR. C. T. DEANE.  
Secretary of the California Petroleum Miners' Association.

225 and 300 barrels capacity each.

The oil as it comes from the well looks like thick, black molasses.

The life of an oil well depends largely on the thickness and life of the sand, as there is dead sand and live sand. The following table will give you a very fair approximate result of the amount of oil contained in one acre:

One acre of land with sand 100 feet thick contains 155,400 barrels; One acre of land with sand 200 feet thick contains 310,800

land in which you may perhaps get oil, but it is largely speculative; of course in all new districts the land is what is called wildcat until it is proven by the drill.

In many of the districts, the oil belt will run in a narrow line from a half a mile to a mile wide, on each side of this there will be no oil. The Kern River field apparently is an exception to this rule, it being a large circular body.

In the Kern River district there are over 4,000 acres which are



five years at least, and that at over \$1,000,000 profit. The same land is selling in Texas for \$50,000 an acre, not as good, and in Baku, Russia, for \$100,000 an acre.

Proven lands can be bought in the Sunset and Midway districts all the way from \$300 to \$2,000; in the Kern River district little first-class land can be had for less than \$4,000.

The price of oil during the last four years has varied largely, due to the simple question of supply and demand. When there were few wells, oil was selling as high as 50, 60 and 70 cents a barrel; while, when the wells increased, and consumption was not yet prepared to take the oil, it dropped as low as 10 cents a barrel. At the present time, as consumption is increasing, oil is going up again and is selling readily at the wells in Bakersfield for 30 cents a barrel. I look to see it go to 40 cents before the end of the year, but this is simply a question of supply and demand. I hardly think that production will ever again catch consumption.

When you hear people say that the Standard Oil company fixed the price of oil they are simply talking about what they do not know. This company does not own wells, they simply buy as cheap as they can; if there is an over-supply, as there has been up to the present, they buy cheap; when the consumption increases and the demand becomes greater, the oil man knows just as well as the Standard Oil company does, that they must have the oil to fill their contracts, and he immediately raises the price of his oil, and the Standard, or anyone else has to pay, for the owner has the best store-house in the world; he lets it rest where nature put it; caps his well and waits. A year ago there were hundreds of wells capped in nearly all the districts, for the oil man said—I will not sell for 10 cents—but now you can't find a capped well, for he can sell for 30 cents, and anyone who has the money is drilling new wells to meet the coming consumption.

The railroad charges, including switching and other expenses, are about 40 cents a barrel, to bring the oil to San Francisco. That makes the cost here 70 cents, but, to make a profit on it, consumers have to pay 80, and next year probably will have to pay in the neighborhood of \$1.

Four barrels of oil equal one ton of coal. Coal cannot be laid down in this market for less than \$6.50 per ton, so that oil at \$1.50 a barrel can compete with coal as to price, not counting many other advantages of oil over the old fuel.

The Standard company's pipeline from Bakersfield to Point Richmond is 278 miles long and 8

inches in diameter; they have pumping stations every twenty-eight miles.

This company has made investments in California of over \$15,000,000 up to date and their investments are all in permanent improvements, such as, refineries, pipe-lines, tankage, etc., and it certainly speaks well for the future of the oil industry, when a great corporation like this is willing to invest such a large sum.

This oil has to be pumped from one station to another about twenty miles apart, and has to be heated to over 150° Fahrenheit, so as to make it flow.

I have no official knowledge of the quantity the Standard Oil company expect to carry through their pipe-line, but from some studies that I have made on the subject, I should say that if they get 5,000 barrels a day, they will be doing well. Their refinery at Richmond will absorb this quantity, so this will not relieve the railroads appreciably nor compel them to lower freight rates.

The transmission of oil in pipe-lines is one which has never been treated in the published works of scientists and engineers, although it has been extensively practiced during almost the whole history of the industry. The practical methods and governing scientific rules, of the work have been thoroughly worked out, but have never been made public. While the practical principles developed in handling the light oils of the Allegheny Oil Fields varying from 40 to 50° Baume and of the Ohio-Indiana Oil Fields varying from 34 to 38° Baume, and of the Baku Oil Fields of a gravity of 30 to 32° Baume, have been sufficient to enable an engineer to calculate accurately just what can be done with such oils, yet, the oils of California, being of an entirely different character, compel an entirely new and different treatment of the subject.

At present the oil to be transported comes from the Kern River Oil Field and varies from near 12° Baume to about 17° Baume averaging about 15½° Baume in gravity at 60° Fahrenheit.

In transmitting it by pipe-line there are several expedients to facilitate the service which may be suggested.

1. To pump the oil at normal temperatures.
2. To mix distillates or lighter oils with the crude oil.
3. To heat the oil to the highest practicable temperatures.
4. To heat the pipe-line at points intermediate between the pumping stations.
5. To mix water with the oil.

This paper is not the place to go into a scientific treatise on the subject of pipe-lines, but as there has been a good deal of discussion of what the railroads would be

compelled to do, after the Standard pipe-line was really working, it might be well to see how many tank cars it would take to carry the same amount of oil, assuming that they will deliver 5,000 barrels daily.

With trains able to haul over 10,000 barrels between terminals, it is apparent that the railroads can handle immense quantities of oil.

If the railroads should organize a five day trip they could deliver 5,000 barrels a day with: 152 cars of 150 barrels capacity, 101 cars of 225 barrels capacity and 76 cars of 300 barrel capacity.

The fact is that they are delivering 25,000 barrels per day now.

There are in the State at the present time in the neighborhood of forty refineries. These refineries make asphalt, distillates, and lubricating oils, and there is a very strong movement on foot to substitute asphalt for bituminous rock in the making of our streets, as being far more durable and not any more expensive.

There is a great difference of opinion as to the cost of pumping oil, in other words, after you have bought your land, sunk your wells, put up all your machinery, tanks, etc., what does it cost you to put oil on the top of the ground. Of course in this cost you have to include interest on the money in-

vested and running expenses, superintendents, office, etc. We can see why there should be such a variety of opinions on this subject, as salaries and office expenses can be run up to any figure desired, but in a well managed corporation, where salaries are no higher than they would be in any ordinary business, if I put it at 4 cents a barrel, I am satisfied that I am making it as high as it legitimately should be. Some of the best managed companies do it at a much less figure, and these are the companies which pay dividends.

As to the saving of oil over coal we have been using it sufficiently long to get a very thorough knowledge and when we say that we save 50 per cent we are rather below than above the mark.

The use of oil on steamships is increasing very rapidly, and there are now over 200 marine boilers in use out of this port; the saving there is much larger than on shore, as it includes coaling, space for coal, which is utilized for freight, weight, which is one-third less, speed, which is increased, more than half the labor in fire-rooms, and the absence of dirt in the form of ashes etc. I understand that Mr. Spreckles is saving in the neighborhood of \$200 per day on the steamer "Mariposa" which runs from this port to

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Tahiti and that the speed has increased one knot an hour.

When the railroads are prepared to use oil exclusively, in other words, when they have their tanks completed all along their road, which will take them some little time yet perhaps by the end of this year, they will be using over 10,000,000 barrels per year.

There is gradually developing a large use for oil in the sprinkling of roads. An oiled road is so much better, more durable, cleaner and less costly, that the boards of supervisors throughout the State are gradually learning; and even in San Francisco they are commencing to oil the roads leading out of the city. It takes about 150 barrels of oil to oil one mile of road, (the oil has to be heated to get the best results) and it costs less than \$200 per mile. I think we can look forward to using in the neighborhood of 1,000,000 barrels of oil the coming year for this purpose.

The number of feet of gas made in California at the present time is I understand, approximately 12,000,000 feet a day. As gas is now being made almost exclusively with oil, this will take over 1,000,000 barrels.

It is not at all a wild estimate to say that in less than five years we will be consuming over 50,000,000 barrels of oil per annum. All marine boilers leaving this port will be compelled in self defense to use it. The saving on a round trip to Manila and return, by one of the transports using oil, instead of coal, would be over \$20,000. It is pretty well conceded that within a short time the boats of the revenue service and the smaller national vessels such as gun-boats, torpedo-boats, etc., will use oil, as the very thorough tests being made at Washington have been very satisfactory, and California oil has given better results than that produced in Texas.

There have been several millions of dollars kept in the State by the substitution of oil for coal, which money has been invested here and is one of the great reasons of the advance in real estate. There have been paid in dividends from oil companies nearly \$5,000,000 to their stockholders.

And now gentlemen I have

given you as rapidly as I could the facts of the oil situation from a commercial point of view. I will not presume to deduce from them any conclusions to so intelligent an audience, as you are as well able to do that as I am, but permit me very modestly to remark, that the discovery of fuel oil in California is the most important event since the discovery of gold. We had gold, we had grain, we had fruit and above all we had climate, but to become a manufacturing State we lacked fuel and as this is God's country God has been very good to us; he has showered upon us all things—we have nothing else to ask. It remains only now for us his creatures, to appreciate at their full value, all these good things,

that several of the formations of this region are oil-bearing he is now directing especial efforts to unravelling the intricate problems with which mining engineers, oil men, and others have to do in the prosecution of their professional and industrial work. A considerable number of topographic maps, covering the agricultural regions of southern California have already been published—these with special reference to the water supply. Latterly other sheets of a similar nature, but covering more particularly the oil fields, both productive and prospective, have been prepared and are now in the hands of the engraver. Still others are under survey in the field. Eventually it is proposed to cover the entire area of the

and structural features encountered, and the text descriptive thereof.

It may be mentioned in passing that the Coast Range of California from a geological standpoint is as little known as many of the more inaccessible portions of the United States. Since the surveys of Whitney little attention has been given to this important mountain system, the Sierras, richly productive in gold and silver, having absorbed the principal efforts of the geologists, State as well as Governmental. In the prosecution of the surveys in the coast ranges, the work has had to be undertaken from the beginning, and many general problems of geology must be worked out before satisfactory conclusions may be drawn with regard to economic problems. As nearly as possible, however, these investigations will go hand in hand, for no one more fully recognizes the necessity for studies of the mineral wealth of our country than the director.

Incidentally attention is called to a recent bulletin, No. 213, of the United States Geological Survey, entitled "Contributions to Economic Geology, 1902," in which a brief account of the oil fields of California is given.

There are 590 oil-burning engines in operation on the Southern Pacific railway, between New Orleans and San Francisco, this being 40 per cent of the engines in use. The Southern Pacific is burning more oil than any other railway system in the world and its number of engines consuming the fluid are constantly being increased.

Kokomo, Indiana, capitalists are arranging to sink 500 oil wells in that county by November 15th. The company has secured leases on 600 acres of ground near Plevna, six miles east of Kokomo, and the work will go forward at once. Within a month there will be 1,000 acres under control, and the number of wells will be increased accordingly.

The ladies of Lake Charles, La., have organized an oil company. Their field is in the Jennings oil district. Mrs. William Raab is the promoter of this new company and she has already more than \$9,000 subscribed.

## A HANDSOME EDITION.

The "Richmond Daily Leader" thus speaks of the last number of the PACIFIC OIL REPORTER:

"The PACIFIC OIL REPORTER comes to the Leader's exchange desk this week filled from cover to cover with news matter and illustrations of Richmond. It is a handsome and almost perfect edition mechanically, is chock full of valuable and original matter about the town, its manufacturing and business institutions, its resources, advantages and future prospects. Its illustrations are perfect half-tone reproductions of splendid photographs and all in all it is an edition of great value to Richmond and her people, both because of a wonderful story, wonderfully well told and of the advertising it will give us."

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### GEOLOGICAL SURVEY.

Work in the Petroleum Fields of California.

The United States Geological Survey, within the last eighteen months, has been making a preliminary examination of the productive oil fields of California, with a view, first, to acquire a knowledge of the general conditions of occurrence of petroleum in the State; and, second, to applying the laws that may be deduced from such researches to other portions of the Coast Range. The Director of the Survey has long recognized the paucity of knowledge relating to Coast Range geology, and in view of the fact

Coast Range, the field work to be carried on as rapidly as the resources of the survey will permit.

Recently a member of the survey has made an extended preliminary examination of the more productive oil fields and the territory adjacent and it is the intention to make public this information in a report to be issued in the latter part of this year. It is the Director's desire, in the preparation of this report, that it shall contain such facts as will be of especial service to men interested in the development of oil fields. The subject matter of the report will therefore embrace such maps of the survey as are available, others more on the order of land surveys, which will serve a temporary purpose, sections of the formations

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## HOW TO OIL ROADS.

### The Successful Methods Employed in San Bernardino County.

Ex-Supervisor T. M. White, of Chino, Gives Valuable Information and Figures, Based on Practical Experience in Roadmaking.

The following article, from "California Municipalities," is from the pen of T. M. White, ex-supervisor of San Bernardino county, whose practical ideas and long experience in road building have made him an authority on the subject:

"Roads made from all soils can be so treated with good results, from loose drift sand to tight adobe clay. One exception must, however, be made, a soil strongly impregnated with alkali. This is better covered with some surfacing material before oiling, since the alkali unites with the oil and forms soap, which dissolves and is washed away in the first rain.

"A sandy, gravelly soil, with sufficient cementing material in it to cause it to pack and become firm under travel, makes an ideal oiled road. A tight adobe or other clay soil, that has little grit in it and works up into fine dust, is the most difficult to work and requires special treatment. We have used oil on drift sand with astonishing results. In the case of sand the oil occupies the interstices between the grains without adding to the volume, and holds it together, converting it into a solid roadbed. But it is different in the case of clay, whose particles are so fine and close that the oil, of itself, cannot penetrate and permeate it; and when, after much stirring, the oil has become mixed with the clay dust, the volume is increased, and a doughy, spongy mass is the result. As the lighter parts of the oil evaporate, and it becomes stronger in its asphaltum base, the mass becomes firmer, but still more or less spongy.

"While the oil and clay dust are becoming mixed, there is a tendency of the soil to ball up, and the mixing is done with difficulty.

"Sand is the remedy for this condition. According to our experience, the best way to treat such a road is, (when water can be secured), to soak the clay dust with water, and then smooth and roll and convert it into a hard, smooth surface.

"Then give the hard surface of the road a light sprinkling of oil, sufficient to just wet the entire surface, then a sand layer followed by a heavier application of oil, sufficient to saturate the sand. Such hard roads make excellent

oiled roads when so treated.

"The oil and sand, after two or three applications, form an asphalt-like covering that is slightly elastic to the horses' feet, prevents dust from forming in the summer, and in the case of adobe road, that without oil became almost impassible at times in winter because of deep mud, it keeps the water from penetrating, if properly drained on the sides, and makes a smooth, firm road in winter as well as summer.

"No rule can be laid down as to the quantity of oil to be used, except to put on all the oil the road material will bear, without it being left in a sticky condition. This may vary from 40 to 100 barrels per mile, per single width of the oiler—6 feet, on a newly oiled road. The first season of oiling a road is the most important one. On loose, sandy roads, two or three applications may often be put on to advantage, the first season. The more oil that can be incorporated with the road covering the first season, the less will be required the next season, and still less thereafter. The streets treated in Chino in 1899, took for the two applications made during the season about 60 barrels per mile, per width of the oiler. In 1900 about half this quantity, in 1901 one-quarter, and in 1902 none, except on a narrow strip along the center of the streets, that had become roughened up a little. This received a very light sprinkling, followed by sanding. These streets are now like asphalt pavements, and apparently will not need any oil in 1903.

"We have found that rolling an oiled road immediately after applying the oil does very little good. While it smooths it down at the time, the travel at once loosens it up, but is the rolling is done six weeks or two months after the oil is put on, it does much good; and some of the best results obtained this last season have been on roads so rolled. The explanation is that when the oil is first put on it has very little cementing qualities about it, but after it has been exposed to the sun and atmosphere for some weeks, it loses its lighter parts by evaporation and becomes stronger in its asphalt base; when, if subjected to the pressure of a heavy roller, it unites and binds the

road's material together.

"Like any other improved road, an oiled road should be kept in good repair. These repairs are easily made and are not expensive; but they must be made at the right time.

"If chuck holes begin to form on an oiled road, the oiler and sand wagon should start out. The loose material should be scraped out of the holes and oil run into them with the hose attachment on the oiler, especially designed for this repair work. Then sand is worked into the oil with shovel and rake. The material scraped out of the hole may be worked in with the sand, though it is better to use clear sand and gravel for this purpose. If an oiled road becomes rutted, ridged and uneven, from heavy travel following along in the same track, and especially by heavily-loaded narrow-tired wagons, it should be gone over a number of times, especially during the first season after oiling, with

an implement that will cut down the ridges and high places and throw the dirt into the ruts and depressions and send a portion up towards the center of the road to preserve the crown. By thus keeping the road shaped up, the travel will be more distributed over the surface, and the second season it will have become so firm that little further trouble will be encountered from this source.

"It is important that travel be kept off from the portion of the road being oiled, until the process is finished. If the road cannot be closed altogether while oiling is being done, then oil one side at a time, keeping travel on the other side. When this side is finished, oiled, sanded and thoroughly mixed, leaving no wet oil on the surface to be picked up by vehicles, then turn the travel on this side and work the other. In this way the travel can be carried on comfortably and without inconvenience to the traveling public.



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But I repeat, leave no wet oil on the surface to be picked up by vehicles, when the road is turned over to travel.

"It is easy to put too much oil on a road that has been oiled the previous season, and is for the most part smooth and firm. Too much oil will soften up the firm surface, the same as it will soften up an asphalt pavement, and part of the previous oiling is lost.

"Sanding serves a twofold purpose when put on a road that has been oiled before, and on a hard-surfaced road. It absorbs the surplus oil, making the road at once pleasant to travel over, and it adds to the wearing surface by covering it with a clear grit; sharp sand, such as masons select for their work, mixed with fine gravel, being the best for this purpose.

"The best time of year to oil roads is after the weather has become settled and it is dry and warm. We generally commence oiling in May and continue the operation from that time on through the summer and fall, up to November. There are frequently, however, many foggy mornings in May, when oiling is done with difficulty. If the spring has been dry, it may be well to oil certain roads, that are liable to cut under travel, in April. There is generally a warm spell during the latter part of the month.

"The conditions are ideal for using oil on roads when the oil is hot, the weather dry and warm and the roadway warmed by the rays of the sun.

"The science of making oiled roads has been brought into discredit in other places by the bad work done under the contract plan of applying oil to roads. A number of counties and towns have passed or are passing through this experience. San Bernardino county commenced in this way in '99, but one season was enough; the supervisors took it up themselves after that, and they could not be induced to contract such work again. Yolo county passed through the experience last year and they got enough of it. Four members of the Yolo board lately visited Chino to get points on oiling roads, the machinery used, etc., and they are now preparing to do the work themselves this coming season. This work, in its very nature, cannot be contracted like the building of a bridge, the laying of a pavement or the building of a macadam road even. It is what might be termed a continuing process. First the roadbed must be put in proper shape to receive the oil; the oil must be put on in varying amount according to the character of the soil, the looseness of the road covering, some spots requiring more than others, etc., and then, a very important matter, the road has to be looked after subsequent to the oiling.

This looking after does not require much labor, but it must be done by one that is painstaking and has faith in the ultimate results, which is a smooth, firm slightly elastic, asphalt surface to the road.

### WYOMING OIL FIELDS.

English Companies Forming to Operate in These Districts

According to "Petroleum," a London oil paper, the Wyoming oil fields are attracting considerable English capital. A recent number of this excellent publication has the following:

"The potentialities of the business of producing petroleum in Wyoming are exceedingly great. If the actual production does not annually increase with marked rapidity the reason is not one which will be considered unsatisfactory. Deficiency of railroad transport has hitherto checked the growth of the industry. In this State there are undoubtedly immense petroleum-bearing territories, and when the work of exploitation is made easier by a proper development of transport facilities, the aggregate output will be incomparably greater than it is today. One Wyoming company, supported by British finance is the La Societe Belgo-Americaine des Petroles du Wyoming, which has been engaged for some time in drilling two wells at Rock springs, on the line of the Union-Pacific railway in Sweetwater county. This company has just issued a special bulletin in which it is stated that oil has been struck at a depth of 2,150 feet. This news is interesting to experts who have studied the geological characteristics of unproven territories in Wyoming; it certainly sup-

ports the theory of the dome formation believed by many oil men to indicate the prolific existence of petroleum in large subterranean reservoirs. One of the principal advocates of the theory is Professor Knight, of the University of Wyoming, who, as a matter of fact, while acting in conjunction with Dr. Boverton Redwood, selected for exploitation the land upon which producing wells have just been brought in. A British venture, known as the Dome Oil company, is starting to drill on a most promising section adjacent to that on which the Belgo-Americaine has secured such excellent results. We are pleased to be able to state that a large percentage of the shares of this company are in the hands of prominent business men in Scotland. The board, though numerically small, is exceptionally strong in the matter of business ability and high financial standing.

### A WARNING.

Everything that comes from Wyoming, in the shape of options, is not above suspicion; indeed there is good reason why Wyoming ventures should not be embarked upon without the closest possible scrutiny of the title deeds. It cannot be too strongly borne in mind that the mining laws of the State demand that \$100 of improvement work, or, as it is known on the other side, assessment work, should be done upon every 160 acres of leasehold land per annum. It can easily be seen that the expense of doing this work upon huge tracts of land, say something like a 1,000,000 acres necessitates the expenditure of a large sum of money. Investors should look with suspicion upon schemes submitted by men who are unable to show a clear

title to the lands which they are seeking to sell. Without proper title deeds and evidence that the mining laws of the country have not been broken, it will obviously be unsafe to touch one of these Wyoming propositions. We mention this because there is a great deal of wild-catting going on in Wyoming, and also it is not unlikely that options of very little value are at the present time in the hands of irresponsible Americans who may visit London."

SAN FRANCISCO, CAL., Jly. 30, '03.  
W. B. WINN, ESQ., Editor PACIFIC OIL REPORTER.

DEAR SIR: In the PACIFIC OIL REPORTER of the 25 inst. you say "President" Denicke of the California Fortune Oil company, etc.

Will you kindly make the correction?

Your splendid edition, celebrating the successful passage of Kern county oil through the 278 mile pipe-line, is worthy of so great a project. I congratulate you on the able manner in which you handle California oil news.

Yours very truly,

E. DENICKE,

Secretary and Manager California Fortune Oil Co.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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ONE YEAR .....\$2 50  
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THREE MONTHS.....1 00  
SINGLE COPIES.....10c

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:

The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
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SATURDAY..... AUGUST 1, 1903

It is hardly necessary to advise every reader of **A Valuable Paper.** The PACIFIC OIL REPORTER to pay very careful attention to the paper of Dr. Deane published in this number.

As secretary of the California Petroleum Miners' Association, Dr. Deane has for over three years given almost his entire time to the various phases of California's oil industry, and no one is better able than he to write intelligently, truthfully and exhaustively on any subject that may in any way be connected with this most important of the many industries that have made California wealthy and famous.

The paper was delivered before the recent convention of the members of the Gas Association of California, and was not only listened to with marked interest by the Association but was regarded as one of the most valuable and suggestive papers read before that body.

The entire paper deserves special mention as to the various points taken up and discussed. We desire, however, to call attention to three of the most important, viz: The amount of oil contained in the Kern River field, the value of the land and the cost of sinking a well.

First, in regard to the amount of oil:

The statement is made that when the oil sand is three hundred feet thick, an acre of oil land will contain 466,200 barrels of oil,

of which twenty percent will be recovered; or, in other words, twenty acres of Kern River oil land will yield in the neighborhood of 10,000,000 barrels of oil. If there be one well on each acre of this land, that produces an average of 100 barrels a day (most of the Kern River wells average 200 barrels a day) in would require nearly FOURTEEN years of constant pumping to exhaust the oil from this tract alone. But as no well can be kept constantly on the pump, owing to delays made necessary in cleaning out the wells, repairing pumps, etc., the time required to exhaust this twenty-acre tract would be at least TWENTY-FIVE years.

But the Kern River field includes fully 4,000 acres. Think of the number of wells that will have to be drilled on this land before the oil from the district is finally exhausted, and think of the time that must elapse before the district ceases to produce.

Then consider that the Kern River field is only one of the many producing fields in California and that the fields now producing will be added to year by year as new districts are discovered and opened up.

If in the Kern River field alone there are today one thousand million barrels of fuel oil, try and estimate, if you can the amount of oil contained in the other districts of the State, and then multiply the amount many times over for the oil in the districts yet to be proved. The result in figures is beyond calculation.

Secondly. The value of oil land.

If twenty acres contain 10,000,000 barrels of oil, worth, say 30 cents a barrel at the wells, then there is in the tract oil valued at \$3,000,000. Figuring the cost of drilling, tankage, pumping, etc. at 4 cents a barrel, or \$400,000 there is a net profit of \$2,600,000. This, mind you, is from a twenty-acre tract.

Now if the figures of Dr. Deane are correct, and we believe they are, the question naturally arises, "What is the land worth?"

Dr. Deane states he recently paid \$4,000 an acre for a twenty-acre tract in the heart of the Kern River district. He thinks the price was extremely low, and we think he is correct. If any one can show a piece of property that can be bought for \$80,000 that in twenty five years will yield a profit of \$2,600,000 we should like to see the property shown up.

If you say no company in the Kern River field is making such a profit we answer that there are companies making just such a showing when the number of wells they are working is taken into consideration. For example it is only necessary to name the Peerless, Imperial, Thirty-three and others equally well managed.

A great many people seem to

think oil land in the Kern River district and other rich districts is not worth as a business proposition more than \$500 or at the outside \$1,000 an acre. They are mistaken. Land here is worth more than \$1,000 an acre, and those who can purchase it for less are getting greater bargains than they realize.

Yet there are hundreds of acres of just as good land as there is in the Kern River field that can be bought to-day for a song. Yet capital seems to be afraid to invest.

We believe that the best investment that can be made to-day is in good oil land, and why it is that some of the bargains that are being offered in vain apparently are not snapped up as a trout seizes a fly is beyond our comprehension.

Third. The cost of drilling a well and putting it into operation.

On account of the mistakes that have been made from inexperienced drillers, poor management, etc., many people think that the drilling of a well costs a fortune in itself. This is a mistake. As Dr. Deane in his paper states, ten wells can be drilled and put on the pump at an average rate of \$4,000 to the well. In the Kern River, McKittrick, Sunset, Midway and Coalinga fields, where the wells average not to exceed 1,000 feet in depth ten wells can be drilled and put on the pump ready for the delivery of oil at an expense not to exceed \$50,000. It is being done by some companies in the field regularly, and the cost ought not to exceed this amount in any instance under proper management and where no extraordinary difficulties are met with from unusually hard and difficult formations. In untried territory where the drillers have not the benefit of the logs of wells previously drilled the difficulties of drilling may be so increased that the expense of drilling the first two wells may be very great. But the formations once learned, and the difficulties to be encountered once understood ten wells of 1,000 feet ought not to cost, complete, over \$50,000.

We have touched upon these three points referred to in Dr. Deane's paper. There are other points of equal importance. The entire paper should receive the careful attention of everyone interested in oil. It should be reproduced in every oil paper published in the East, and elsewhere. It gives an insight into the practical, commercial side of California's oil industry that has never been given in any single paper previously published.

The deepest oil well ever drilled in the northwestern Ohio fields, Lima, O., has been abandoned by the North Dakota capitalists, after reaching a depth of 2,700 feet without signs of oil.

The production of asphaltum and bituminous **Production of As- rock in phaltum and Bi- 1902, according to the report**

of Dr. Joseph Struthers to the United States Geological Survey, now in press, showed a large increase over that of 1901, amounting in quantity to 36,525 short tons and in value to \$122,259, the figure for the two years being, respectively, 99,659 short tons (\$677,594) and 63,134 short tons (\$555,335). The relatively smaller increase in value as compared with quantity was due to the very large proportion of bituminous sandstone produced.

The production of hard and refined asphaltum increased from 19,316 short tons in 1901 to 22,321 short tons in 1902. The production of liquid asphaltum, all of which was derived from California, decreased from 2,600 short tons in 1901 to 1,605 short tons in 1902. The quantity of asphaltum produced in the refining of crude oil during 1902 amounted to 16,027 short tons.

The imports in 1902 amounted to 153,093 long tons (\$492,604), as compared with 138,833 long tons (\$553,473, in 1901.

## ACRES OF OIL CARS.

**Tank Cars Show the Growth of the Oil Business.**

Sometimes one judges the magnitude of a business by the size of the building it is done in, although this is by no means a certain method. Then again the number of men the business employs is a partial measure of its volume. Neither of these methods, however, will adequately convey to the mind of the seeker after information even a faint appreciation of the amount of petroleum used in the various industries hereabouts nor the demands that are made on the carrying capacity of the roads over which the crude article is transported. It needs a trip to the car yards after a busy day of receiving to fully call forth the amazement and widen the horizon of possibility for the uninitiated. Acres, almost, of mammoth tanks, each one occupying a car of its own, are found in long tiers on the various lines of track, so many, indeed, that the eye wearies looking at them for their very sameness. And here are baby tanks, almost, showing what was thought to be sufficiently large to meet the demand when the industry was in its infancy, and beside them the monster twelve and three-quarter thousand gallon ones that are never allowed to be idle, illustrating most forcibly that oil producing in California has become one of the State's most important wealth producing factors, as well as a source of large revenue to the carrying lines.—"Oakland Tribune."



## A HOPELESS TASK.

### Eastern Oil Producers Unable to Keep Pace with the Demand.

Work as they will, the oil producers of the Eastern fields cannot keep pace with the increasing demand for oil as shown by the increasing shipments. The idea that it is possible to "catch up" with demand has been disproved so often that it is no longer entertained. The experienced oil man works hard to get oil from the earth that he may sell at high prices, but he has ceased to expect the time when production will equal consumption or the supply be adequate to the demand.

Pennsylvania stocks, which once amounted to nearly 40,000,000 barrels, are now a little over 5,000,000 barrels. The Buckeye stocks, which have been up to 24,000,000 barrels, are now below 16,000,000 barrels, and the decline the past month was over 100,000 barrels. These figures are taken from the Oil City Derrick and are reliable. The Derrick asks, is it any wonder then that the producer has redoubled his efforts, and is devoting his utmost energies to the discovery of new oil fields and increasing the output of crude petroleum? The industry is scattered over a wider area than ever before known and extended into states that a few years ago were unheard of and unknown as possible sources of petroleum production. Texas and California have become important factors and within a few years to lead all the other states in the amount of their oil production. But as the larger amount of their petroleum yield is of the fuel oil variety, it does not necessarily enter into present comparisons. Both states have been increasing their daily production, which has had its effect in bringing about a considerable decline in the market price of fuel oil.

The production of the higher grade petroleums used principally in the manufacture of illuminating oils, that has been confined thus far to Pennsylvania, New York, West Virginia and Southeastern Ohio, was increased from 83,800 barrels a day in May to 89,200 barrels a day in June. To bring about this gain required the completion of 839 new wells, which was at the rate of twenty-eight a day. Of this number, 612 were productive of oil in paying quantities, and their average yield was the lowest recorded in many years. To maintain the production at its present figures, say 90,000 barrels a day, will require the completion of at least 600 productive wells a month, unless some new Manington or McDonald is unexpectedly opened up. The advent of a new pool is urgently demanded by the trade and frontier operators are eagerly expectant

that one may soon be brought to light. But every day lessens the chances of their discovery in the deep and regions of West Virginia, which has furnished the most of these prolific districts for the past ten or twelve years.

But there can be no doubt, says the Derrick, that the world stands ready to take 60,000 barrels of Lima oil and 90,000 barrels of Pennsylvania oil every day so long as the product can be supplied at the present market prices. And if drilling 1,650 wells a month will accomplish this result they will continue to be drilled so long as the producer can find anything that looks like a favorable location whereon to erect a rig.

### Russian Oil Fight.

The famous firm of Rothschild, the princes of Parisian finance, allied with the millionaire Nobel, one of the greatest factors in Russian oil, stands behind the English Consolidated Petroleum company in the petroleum price cutting war with what is known as the Caucasian Petroleum company, a young concern backed by the Russian millionaires Mantacheff and Gukassoff, says an exchange. The great fight has lasted a year. The Consolidated had a monopoly of the Russian oil trade in the English market. The Caucasian company is seeking to get a foothold in the British oil market with the result that in some parts of Great Britain Russian oil is being sold at a ruinously low figure. American oil, most curiously, does not appear to suffer to any appreciable extent; it is popular with the people at practically the old prices, and the competition between the Russian concerns does not threaten to do damage to the imports of the American products.

### Kansas Pipe Line.

Work has been commenced on the Standard Oil company's pipe line through Chautauqua and Montgomery counties, Kansas, to the Neodesha refinery, and is being pushed rapidly. The line is also to extend into the Indian Territory and connect the Bartlesville field. Branch lines will penetrate every part of this oil field, and connect with with every producing well. Large storage tanks will also be erected along the line for emergency purposes.

### Price of Texas Crude.

Sour Lake oil is now quoted at 20 cents and Spindle Top at 30 cents a barrel. This is a drop of 50 cents in the fuel oil market since Sour Lake began to figure as a factor in producing circles. New storage tanks, with an aggregate capacity of 2,000,000 barrels, will be constructed at once at Sour Lake, which appears likely to rival Beaumont in the output of crude petroleum.

## THE INDIA OIL FIELD.

### Some Sketches of the Strenuous Life of the Driller There.

John W. McCrea, of this city, has received a letter from his brother, W. H. McCrea, who is drilling for oil in Yenangyat, British India. The letter is dated June 7th. The first thing Mr. McCrea mentions in his letter is that he has reduced in weight from 240 pounds to 165 pounds in weight, and he fears the intense heat will have such an effect on the Americans with him that they will have to give up drilling towers, and just drill in the cool of the day, as was done in the past, the tower work being an experiment. Mr. McCrea says that when he is off duty it is hard to get rest, even with a native continually fanning him while he attempts to sleep. The servant watches him closely, as a foreigner is liable to smother in his sleep. He says the natives are fairly good cooks and servants and that the company for which he works gives the oil men everything they ask for which will add to their comfort. Mr. McCrea is located on the banks of the Irrawaddy river. The river runs through a valley at that point and the hills rise to an altitude of 2,500 feet. "The Irrawaddy river is a singular stream," he says, "some points being about ten miles wide. It has a great many islands, some of them containing from 3,000 to 5,000 acres, which land is tilled by the Burma Indians. The islands are dotted with little bamboo huts, wherein the Indians reside, and the rice they use is grown on these islands. Some distance up the river the natives are less particular as to their living apartments. They never build any houses. A few corn stalks stood up against a cactus tree makes a good enough house for them. Their scant clothing would make the ordinary oil well driller blush, but they wear what nature gave them with apparent becoming dignity, in accord with the customs of the country. Peter O'Donnell is now in the hospital at Rangoon suffering from eczema or some kind of skin disease, but he expects to resume work in a few days."—Bradford "Star."

### ANOTHER PIPE-LINE.

#### The Standard to Control the Texas and Louisiana Fields.

A special to the Times from New Orleans says: John D. Rockefeller is said to be planning a pipe-line that will practically give him control of the entire oil product of the Louisiana and Texas fields. The Standard Oil company is largely interested in the Kansas oil fields, and it is said plans are being perfected for a pipe-line traversing the State of Missouri and Indian Territory and penetrating the Louisiana and Texas fields, making the long-

est pipe-line in the world, covering a vast territory, and merging the products of all these fields at some point convenient for shipment and refining purposes.

News of this gigantic enterprise was brought to New Orleans through a letter received by William H. Mason of St. Louis, who is at the St. Charles hotel, from J. D. Stream, cashier of the City National Bank of Kansas City.

"If these plans are put into execution it means the development of the Southern oil fields to the fullest capacity," said Mason. "The contemplation of so gigantic an undertaking shows that the Louisiana and Texas oil fields are very promising."

### In San Domingo.

J. W. Kreider, a member of the St. Louis syndicate which has just secured 350,000 acres of land in San Domingo, has made a thorough inspection of the tract, much of which is first class oil land. In speaking of the results of his inspection Mr. Kreider said: "There is unequibled plenty of oil there. A hole dug ten feet deep fills at once with oil, and it boils out like a geyser. The oil has a paraffine base, and is lighter than Texas oil. It runs off in streams of pure crude oil through the dry creek beds, and, of course, vegetation is killed off. The natives look upon this part of the island as the home of evil spirits. They are afraid to venture into it and one can hardly blame them. There are great dead forests there where the gasses that come up from the ground kill all animal life, and the ground is white with the bones of animals and birds."

### The "Only" Oil Town.

The Bartlesville (Ind. Ter.) Examiner exultingly remarks: Fifty-six producing wells within a radius of four miles of the business center of Bartlesville, with an average production of 24.6 barrels of high grade illuminating oil per day. This means 41,328 barrels per month. The big oil strikes of the week are certain to attract attention from oil men all over the country to this field. A big rush from the East is predicted in consequence and the belief is expressed on every hand that Bartlesville is on the eve of a boom the like of which was never seen west of the Mississippi except when the asphalt beds of Beaumont were first tapped of their substance. Bartlesville is a genuine oil town, the only one in Indiana territory or Oklahoma.

The Standard Oil company recently shipped four cars of oil from the Neodesha, Kansas, refinery to Omaha, Neb. The oil is warranted to test above the state requirement and is of a superior quality. The Neodesha field contains a number of quiet wells, but no spouters.



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALASKA.

Dr. G. C. Martin, of the United States Geological Survey sailed from Seattle for the Kayak Island oil fields on the 7th of June. He has been instructed to make a preliminary investigation of these oil fields, which have been attracting great attention during the last few years. At least one well is producing oil, and others are being drilled. It is expected that Dr. Martin's report, based on his investigations, will be of great aid in the development of this new field. In August he will make his way to the Cook Inlet oil fields, in southwestern Alaska, which are also attracting a great deal of attention.

### COALINGA.

The Twenty-eight Oil company is making preparations to rig up for No. 9.

The Pleasant Valley Stock Farming company's rig on section 6, is finished, and R. C. Baker will spud in next week.

P. E. Daniels has purchased from the Chicago-West Point Oil company the  $N\frac{1}{2}$  of NW $\frac{1}{4}$  (except east eighty acres) of section 6, 19-16.

Well No. 8 of the Oil City Petroleum company is now in the oil sand and in all probability will be finished by the end of next week. This company is contemplating the drilling of other wells after completing the present one.

The Chicago West Point, Chicago Limited and Chicago Reliance Oil companies have been consolidated under the name of the Chicago Consolidated Oil company. The consolidated company is located on section 6, 19-16 and have drilled one well which is now being finished and has another rig completed to spud in.

The California Oil Fields Limited have added another spacious building to serve as a rooming-house for its employees. Other buildings have also been added recently to provide comfortable quarters for the increasing number of men that are being employed. The company is carrying on more extensive operations now than ever before. In all seventeen rigs are now on the property of the Limited located on sections 21 and 27.

The Pacific Coast Oil company expect to add two more large storage tanks in this field in the near future. The branch pipe-line from section 28, connecting with the line from section 27, has been finished. Another pumping station in 27 is under construction which will be exclusively used in pumping the heavier oil through the new six-inch line that has been laid running parallel with the four-inch to the main storage tanks.

The Roberts Oil company, that has recently been organized, has erected the first rig on section 1, 20-14, and drilling will be commenced as soon as Brown & Garrigan have finished their contract for completing well No. 3 for the Esperanza. The officers of this company are: W. L. McGuire, president; Geo. Ehle, secretary; First National Bank of Hanford, treasurer. The company is incorporated with 100,000 shares at \$1.00 par value. It is understood that most of the stock has been subscribed.

A very important transaction was closed last week when Mr. J. A. Bunting and Mr. Scott purchased the controlling interest in the Esperanza Oil and Gas company. Originally the company was organized with 125,000 shares at \$1.00 per share, 20,000 shares of which were retained in the treasury. The price paid in this transaction was \$1.25 per share. The Esperanza has two flowing wells of about 19 gravity oil, producing fully 400 barrels each per day. Its No. 3 well is now penetrating the oil sand with every indication of an equally good flowing well as the other two.

The management of the Coalinga Iron Works is contemplating changing the firm into a stock company, capitalizing with 20,000 shares at \$1.00 per share. This will be done to provide a larger working capital with which to stock the shop with some larger machinery to do more efficient work and at shorter notice.

Considerable interest is manifested among the local operators, who will undoubtedly become the largest subscribers to the stock. Although the local shop is amply equipped for the present demands of the field, time can be saved by the addition of the new machinery that the proprietors have in mind to purchase.

The Coalinga News says that there is in the Coalinga field, scattered around among the different companies and at Ora Station, somewhere in the neighborhood of 400,000 barrels tankage. This estimate includes the large tanks of the P. C. O. Co. that are already built. That company will, as stated elsewhere in this issue, build two more 35,000 barrel tanks in the near future, but it does not include any permanent or temporary reservoirs, of which there are a few. This tankage is distributed among the companies as follows: Southern Pacific Railroad, 110,000 barrels; Pacific Coast Oil, 105,000 barrels; Coaling and C. & C., 70,000 barrels; Home, 40,000 barrels; Union, 32,000 barrels; California Oil Fields Limited, 30,000 barrels; Maine State, 6,000 barrels; Oil City Petroleum, 3,000 barrels; Twenty-eight Oil company, 3,000 barrels; McClurg, 2,700 barrels; Elzuma, 2,500 barrels; Hanford, 2,500 barrels; El Capitan, 2,000 barrels; Independence, 1,700 barrels; Caribou, 1,500 barrels; Stockholders, 1,000 barrels. A large majority of these tanks are made of steel and iron and a very small percentage of wood. The galvanized tanks are mostly those manufactured by the Kutner-Goldstein company of Hanford.

### COLUSA.

The oil prospects in Colusa county are brightening up considerably; no less than five new rigs will be at work within the next sixty days, so there must be faith in the discovery of oil on the part of a few people. The Washington-California company of Glenn county, is down in the earth 2,300 feet with bright prospects: in fact they expect to strike oil any day.

### FULLERTON.

Bakersfield and Los Angeles oil men have secured control of 2,500 acres of land between Newport and Santa Ana, which they will develop for oil. The district is a new one, about eighteen miles from the nearest proved territory at Fullerton.

### KERN

The Junction Oil company has its fifth well now at a depth of about 600 feet and the lumber for the sixth rig is on the ground. The company is on 9, 29-28.

The Peerless will pay another dividend on the first of August amounting to \$14,000. This will make a total of \$146,000 paid out by this company to its stockholders.

The directors of the Pittsburg Oil company held a meeting Saturday afternoon and declared the fifth dividend of 2½ cents, paid by the company. It will be payable on August 1st.

The third well being dug on the Grossmeyer lease on 31, 28-28 is now at a depth of about 500 feet and the rig for the fourth is now up and drilling will commence within a week.

The California Kern Oil company, operating at Kern River, is negotiating with an Eastern manufacturing firm for material for building a refinery on the property. The company has just completed its second well.

On August 13th Constable McKamy will sell at public auction the interest of the Clark Refining company to the SE $\frac{1}{4}$  of 7, 29-28 at Kern River field to satisfy a judgment for \$191.90 given in Justice Millard's court in favor of Dinkelspiel brothers against the now defunct corporation. The balance of the property was attached by the sheriff under judgment in favor of other creditors.

C. H. Congdon, superintendent of the Union Pacific company operating in the Carisa district, six miles to the southwest of McKittrick, has received a telegram from the directors of the company

in New York, ordering work to be resumed at once. The development was recently suspended temporarily. The property is near that of other companies which have been working in the Carisa.

The Potomac is again placing all its wells on the beam, abandoning the use of the air compressors after two years' trial. Mr. Morton gives as the reason for this that the compressor requires too much submersion, while on the beam the well can be pumped dry. Several companies, however, notably the Mercedes and Globe, are still using the air compressor. The Potomac is now putting up a new boiler-house.

The "1901" Oil company, operating on 34, 30-22 at McKittrick, has levied an assessment of one half cent on all its capital stock. The levy was ordered at a meeting of the directors on the 9th inst. and is payable to Secretary J. E. Polhemus at his office in the Crocker building, San Francisco. It will be delinquent on August 15th and all stock unpaid by September 4th will be sold at auction. This company's property adjoins that of the Monarch and there is one well on it.

Considerable interest is being manifested here over oil indications in the vicinity of Black's canyon, about forty miles east of camp. Some Chicago people have a rig up already and are drilling. A number of Randsburg people have visited the section and have made locations. It will be remembered that two years ago Randsburg experienced an oil boom over this same section of country. Although no active operations were undertaken at that time owing to a slump in oil, yet this territory had many supporters who believed that it would one day become an oil producer. Reports say that much ground has already been located.—Randsburg Miner.

The Associated is about to build a new office building on the San Joaquin lease at Kern River to take the place of the one now in use. It is reported when the new building is put up a large amount of business now transacted at the city office may be removed to the field and the force in town reduced. The Associated is just completing a new boiler-house on the San Joaquin lease. This will have six boilers and will furnish power for all the work on the San Joaquin. The present plant will be abandoned, as it has but two boilers and is not sufficient to furnish the power needed. The jack engine in the present building will be furnished with steam from the new house.

### MENDOCINO.

The Russian River Oil and Improvement company had the misfortune to break a drill at a depth of about 400 feet. This will cause about a week's delay as the implement had to be sent to San Francisco for repairs. So far they have struck no water in the well.

The Ukiah Oil and Development company are working night and day on their

well and Mr. Youle reports the outlook very favorable. They are down about 500 feet and have struck a fine flow of artesian water. This will be shut off however when the next section of casing is put down. Mr. Youle states that the report that gas had been struck is a mistake. It is merely the gas from the decayed vegetable matter in a stratum of clay.

### MONTEREY.

The San Miguel Enterprise speaking of the oil prospects about Parkfield says: "The oil business, which has been rather inactive in this community for a year past has received quite an impetus in the last few weeks. Several prominent oil people have visited our community and active operations will soon commence. Some of the best experts of the State have said that we have excellent indications and in fact all development work that has been done goes to prove this fact."

### SANTA MARIA.

The Union Oil company struck a gusher. The tools became lodged in the pipe, preventing the oil from going to a great height. The flow lasted an hour and a half.

Well boring in the Santa Rita was suspended awaiting casing. The well is down nearly 1,000 feet, with strong gas indications. 'Tis believed oil will be secured at this point at a less depth than Union No. 1, where 2,300 feet brought in a great well of most excellent oil.

Besides the Pinal there are several other companies which have been successful and a number of others which expect to have good wells come in within ninety days. Hundreds of men are being employed at big wages in these different fields and thousands of dollars are being thrown into Santa Maria each month. There is considerable building under construction in the little city and it is safe to predict that within the next few years Santa Maria will have grown to double its present population.

On the Western Union property there are now seventeen wells, and the company is planning to sink more. Well No. 13 will be made a test well and the owners are figuring on going down 3,000 feet. The work will be done with the rotary which has proven very successful in drilling some of the company's wells. The bulk of the company's oil is being sent through the pipe-line to Ceresaga, from which place it is pumped to Alcatraz, and thence loaded on deep sea vessels and shipped to China and the Orient. We had the pleasure of shaking hands with Mr. A. J. Osgood, the company's new superintendent, who, by the way, is not only a thorough gentleman, but a man versed in oil matters like veterans are.

The editor of the "Santa Maria Times" last week visited the oil sections of Santa Barbara county, and speaks as follows: We can truthfully state that things look



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Less than \$10,000 worth of stock will be sold, which means such a small amount of stock will earn enormous dividends. Dividends of not less than 1% will be paid, beginning with October. The company will pay not less than 5% per month beginning with January, when the ten-stamp mill is in operation.

A few shares left at .50 per share; when sold the price will be doubled, possibly trebled. If you want dividend-paying stock, remit without delay.

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mighty promising in this section of the county. The Pinal was the first to which we directed our attention, and found that the company was deepening well No. 2. No. 1 was under the pump and the gusher was safely capped, but the escaping gas gave evidence that there was a terrific force pent up underneath. The report given in last week's issue that well No. 4 was down 500 feet must have been a mistake, as we found that the workmen were just completing the derrick. A force of men was also at work digging trenches for the new pipeline to Graciosa. The Brookshire, Mr. Godwin, the superintendent, informed us, is waiting for casing. This company at present is down over 500 feet and has prospects of striking the same strata of oil as the Pinal is in. The Union company, formerly the Loma, located only a short distance from the Pinal, is in oil, but the owners are digging deeper.

The Union company's well to the right of the Pinal is making steady progress and is now at a depth of something like 600 feet. In passing along the Pacific Coast railroad we observed considerable new machinery and material for new rigs and also passed a new rig being hauled along the county road, evidently heading in the direction of the Pinal field, which indicates that several new companies were quietly slipping in. At Graciosa several carloads of pipe were being unloaded. A number of men were at work there, evi-

ceptions the stock of this company is held by non-residents. Within the past few weeks the Pinal Oil company, composed chiefly of Santa Barbara county business men, most of whom reside in the northern end of the county, has opened up an entirely new field on the Santa Maria side of the Los Alamos mountains, and probably the most valuable oil gusher in the United States has been tapped. It is impossible to estimate the capacity of the well, although it is known that it will flow several thousand barrels of the valuable fluid a day. Wednesday afternoon the cap was unlocked and the oil was allowed to spout for an hour. Those who witnessed the sight believe that a thousand barrels of oil was thrown out in this time. As has been stated, the stock of this company is held by local men and not a few of these have cleared \$25,000. Yesterday afternoon A. H. McKay of this city sold to J. B. Bennett of Santa Maria 2,500 shares at \$2.50. This was given only as an accommodation, and it is impossible to get hold of another share at this price. The company is expecting another gusher to come in within the next thirty days and if predictions are correct the stock will undoubtedly go as high as \$500. There are 140,000 shares at the par value of \$1. The following are the original promoters: A. H. McKay, S. Fleisher, M. Fleisher, P. O. Tetzen, E. W. Clark, J. A. Atkinson, D. D. Barnard, Pat

good sand for some time before work was stopped. The well is now being pumped, and promises to be a valuable addition to the wells of this company.

The Whittier Crude Oil company have just finished another well, No. 4, which will take the place of No. 4 drilled about two years ago, and afterward abandoned because of the water collapsing the casing. The new well is 2,200 feet deep, with 7½ casing. The head is not off yet, so that the actual production of the well is yet a matter of uncertainty, but it promises to be a good producer. Frampton brothers were the contractors putting down this well, and they have made a very good record, work being begun on the hole in January of this year.

#### WYOMING.

A representative of the Continental Oil Co. was in town this week looking over the oil situation. The Continental is a retailing department of the Standard.

The Evanston Lumber Co. this week shipped two sets of rig timbers to the Atlantic & Pacific Co. at Spring Valley, one to be placed on Sec. 26 and one on Sec. 22, 15-118.

Mr. E. F. Howell, a representative of the Union Oil Tool Company, of Los Angeles, was in town during the week looking over the oil fields in view of estab-

their annual meeting in the office of the company in the Kastor building, 509 Front street. Maj. F. M. Ecote and A. A. Perkins were elected judges of the election and Isadore Kastor secretary. The following trustees were elected for the ensuing year: T. W. Stranahan, N. E. Strong, W. E. Neahr, D. Forbes, W. F. Hake, J. W. Riecke, N. B. Scribner. Mr. Stranahan and Dr. Riecke visited their well on section 26, 17-120 on Monday and were highly pleased with the progress made and the results so far are very satisfactory. From all indications the company will have a flowing well in the near future. After spending several days in the field visiting the various oil wells the gentlemen departed for the East very much elated, and satisfied that the Uinta oil field is one of the greatest ever discovered.

The Evanston "News Register" says: "More oil" is the slogan that will be heard in the Uinta county fields from now on. A number of wells now going down have reached such depth that oil is liable to be encountered by them at any time. The latest strike to encourage operators throughout the field was made last Saturday, when the drill of the Atlantic & Pacific company, in their well No. 2, on section 22, 15-118, encountered a prolific oil sand at a depth of 1,680 feet. The new well is located about 300 feet west of the well known as the "Ellis," which was brought in last fall by the same company at a depth of 1,200 feet. Up to a few days ago it looked very much as if the oil stratum had been missed in well No. 2, owing to the greater depth, but telephone communication with the manager of the company at that time gave the news that oil had been encountered and last Saturday morning the sand was drilled in and the oil rose 450 feet in the casing, flowing in at the rate of five barrels an hour. This flow would be many times increased if the wells were shot, but this does not seem to be the policy of any of the companies for obvious reasons. The greater depth of well No. 2 is accounted for by the great pitch of the oil stratum at this point, well No. 1 being located at the extreme apex of the anticline. The quality of the oil is extremely fine, having a paraffine base and gravity of 45° Baume. It is expected that oil will be struck in well No. 3 owned by the same company within the next ten days. Extensive preparations are being made by other companies to develop their property. This makes seven producing wells in the Uinta field.

Discussing "the bare-faced character of the fraud connected with the King-Crowther Corporation, of Texas," "Truth" draws attention to the fact that "a big advertisement appeared in the London 'Times' extolling the merits of the corporation, and inviting the public to take up shares." "Truth" also says: "The shares were pushed by that singular concern, British Investors' Underwriting Corporation, with the usual worthless guarantee that they would be bought back at par at any time on thirty days' notice."



Western Union Oil Wells on the Careaga Rancho, near Santa Maria.

dently laying the new line for the Pinal company. While, taking the situation as a whole, it cannot be called a boom, yet it is exceptionally flattering. A remarkable feature about the present oil development is the fact that not a single "tin-can" concern is in the field, as each corporation is doing the work with its own money and not endeavoring to fleece the public as so many companies did in Beaumont and in other places where oil excitement has existed. It is safe to state that at the present rate that the companies are developing the oil territory in this and adjacent valleys, there will be little territory left unexplored when they finish up.

The Lompoc "Record" says: The southern and western sections of this most fertile valley has just recently been proved to be one of the greatest oil territories in the United States, and every month brings in evidences that even the most sanguine hopes of the owners of this land have been realized. Two years ago the Western Union Oil company found oil on the Careaga rancho and now eighteen wells are each producing close on to 300 barrels of oil a day and the company has thousands of acres which is oil bearing. The company's organization is \$1,000,000, and the last stock that was sold was on the basis of \$1,500,000, and even at this figure it is impossible to get stock. With two ex-

Moore, Dr. C. E. Reid and J. F. Goodwin.

#### SARGENTS.

According to the Gilroy Gazette Col. Beane has his oil well drilled to a depth of 1,000 feet and expects a gusher shortly.

R. W. Chappell has leased the oil right to 105 acres of Hill lot 14, San Justo rancho to John Martin who agrees to commence the work of drilling within six months.

The Watsonville Coast Oil company which owns considerable territory in the Gaffey district, is considering the advisability of sinking another well. Frank Gaffey, the secretary, says that experts who have inspected the territory agree that the prospects are excellent. The company has invited bids for sinking a well and it is probable that work will begin in about two weeks.

#### WHITTIER.

Walter L. Young, superintendent of the Commonwealth Oil company, was in Whittier last Wednesday looking up the feasibility of running a pipe-line from the property of one of the producing companies to his property to furnish a supply of oil for fuel purposes.

The Turner Oil company has just finished No. 6, at a depth of 1,200 feet, with 9½ casing. The drill had been in

lishing salesrooms here.

The Inter Ocean Oil Co. have asked for bids for building three derricks on their property north of Evanston. A number of prominent Evanston gentlemen are connected with this company.

A. B. Butler, of the American Consolidated, left for San Francisco last Sunday after having made arrangements for seven more standard drilling rigs for their property in the Spring Valley district.

Geo. B. Eyssen, of Boulder, Colo., a representative of the National Supply Co., was here this week looking over the oil situation with a view of establishing a warehouse and shops at Evanston. This company are anxious to establish themselves on the ground floor.

Another rig will shortly be erected on holdings of the Bettys Oil & Development Co., just east of Evanston. J. L. Atkinson has received an order for the rig timbers, to be filled at once. Oil has already been encountered in well No. 1 of the Bettys Co., but owing to several hundred feet of water in the hole, it is impossible to state just what the find will amount to.

Messrs. T. W. Stranahan, president, and Dr. J. W. Riecke, general manager of the Michigan-Wyoming Oil Co., arrived here Sunday noon from Grand Rapids, Mich., and on Tuesday held

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## ALASKAN OIL.

Interesting Statements Made by  
Prominent Oil Operator.

J. H. Costello, of Buffalo, N. Y., while en route to the Alaska oil fields, in which he is interested, gave out the following interview:

"The Alaska oils are paraffine base," said Mr. Costello, "and contain a large percentage of naphtha, kerosene and lubricating properties, thereby making the product more valuable and better adapted for refining purposes than as a fuel oil. The oil should have a ready and profitable market at the refineries, and would easily find a market on the Pacific Coast, the Orient and possibly in Europe. The Alaska oil would meet with but little competition from California or Texas oils, inasmuch as the oil obtained in these two states is better suited for fuel purposes, being of a heavy specific gravity and asphaltum base, and altogether much inferior to the product obtained from Alaska.

"Necessarily the oil from the Alaska field will be transported by water in tank ships to the refineries at San Francisco, unless in the near future refineries should be built at some nearer port. Seattle as a distributing point for the refined products offers excellent facilities. The tank ships

that would probably be the best adapted for transporting the crude oil to the refineries would range in capacity from 22,000 barrels to 40,000 barrels, or ships varying in net tonnage from 5,000 to 9,000 tons.

"Analysis of the Alaska oils shows that they carry considerably higher percentages in naphtha, gasoline and lubricating properties than the Pennsylvania crude. The Alaska fields also have to their advantage water transportation, and can conveniently pipe the oil from the wells to the tank ships without incurring a large outlay of money in expensive pipe lines, railroads or transportation charges.

"Until the oil belt in the Alaska fields is correctly defined, there will necessarily follow many disappointments to some of those interested in locating and drilling wells, and not unlikely many dry holes will result in consequence. Previous to the commencement of drilling and setting up rigs, it would be advisable, when possible, for the owners to seek experienced and expert knowledge in determining the proper locations for drilling."

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

## A Fight for an Oil Field

Northern Montana is watching with interest the fight that is going on between the Canadian Pacific Railroad and the government of British Columbia, for the possession of the land on the Canadian side of the Kintla Lake oil district, which lies in the northern part of Flathead county and in southern British Columbia.

The government sought to revoke the crown grant which transferred the lands to the Columbia & Western Railway, a branch of the Canadian Pacific.

This resulted in the resignation of the ministry and the dissolution of parliament, while an appeal to the country was prevented only by the institution of charges against the government. The evidence before parliament seems to have been of a very contradictory character.

The result of the investigation went to show that the company had earned the lands and was entitled to patents, but was tricked by the premier into returning them as a loan and now that it has been demonstrated that the lands are valuable for the oil and coal they contain, and others want them, the company might not recover them.

The difference is expected to be

adjusted early in September. If the company acquires possession of the land, it is expected that active development operations will be commenced and a railroad constructed from the Crow's Nest pass. Should the crown grants be cancelled, private parties will endeavor to develop the properties upon a large scale. The oil fields have been explored and their value demonstrated.

The district, which has come to be known as the Kintla Lake oil district, is from seven to ten miles in width and something over twenty-five miles in length. It is bounded on the north and east by the high and precipitous mountains of the main range of the Rockies, and on the west and south by the equally heavy Whitefish range, a spur of the Rockies.

The altitude of the valley above the railway to the south, and the topography of the intervening country, makes the conveyance of oil to the railway by pipe line feasible and economical.

The daily runs of the Ohio and Indiana fields are gradually crawling up. The increase is moderate, however, and may not be expected to reach 70,000 barrels this year. The most of the increase must come from Indiana, as the better portions of Ohio are pretty well picked.

## Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.									
	Gallons	Value	Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been dis- tilled.			
			Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
April, 1903.												
British Columbia.....					200	\$49						
Costa Rica.....					600	136	82	\$42				
Guatemala.....					8,060	1,600	366	157				
Honduras.....					3,600	638	331	152				
Salvador.....							474	172				
Mexico.....							1,455	455				
Chinese Empire.....							600	120				
Japan.....							5,200	1,514				
British Australasia.....					60	15						
French Oceanica.....					490	105						
Alaska.....			96,830	\$9,334	39,738	5,829	4,820	2,160				
Hawaiian Islands.....	1,092,000	\$36,400	11,790	1,699	27,880	5,868	6,361	1,442				
Tutuilla.....					40	6						
Total.....	1,092,000	\$36,400	108,620	\$11,033	80,668	\$14,246	19,689	\$6,214				
May, 1903.												
British Columbia.....							555	\$265				
Costa Rica.....			2,420	\$427	2,110	\$416	69	31				
Guatemala.....					9,180	1,925	330	98				
Salvador.....			60	16	2,150	430						
Mexico.....			110	25	2,800	539	360	133				
Chili.....					140	31	226	52				
Chinese Empire.....							320	80				
British Australasia.....							1,938	491				
All other British Oceanica.....			3,040	434								
French Oceanica.....			1,950	368			59	28				
Alaska.....			12,080	2,324	4,687	1,071	140	70				
Hawaii.....					2,040	421	104	53				
Tutuilla.....	2,534,698	\$84,260	28,760	3,254	36,600	7,688	12,301	4,733				
Total.....	2,534,698	\$84,260	48,420	\$6,848	59,707	\$12,521	16,402	\$6,144				
June, 1903.												
British Columbia.....							482	\$165				
Costa Rica.....					800	\$186	25	7				
Guatemala.....					4,500	896	2,634	1,123				
Honduras.....					820	158						
Nicaragua.....					500	110						
Salvador.....					290	58	345	107				
Mexico.....					500	75	30	6				
Chili.....							2,970	272				
British Australasia.....							1,434	418				
French Oceanica.....												
German Oceanica.....					250	53						
Alaska.....	840,000	\$28,000	330	\$73	1,235	256						
Hawaii.....	2,343,770	\$78,659	38,700	8,601	31,480	6,684	2,204	1,053				
Total.....	3,183,770	\$106,659	47,270	\$9,985	59,875	\$12,452	27,813	\$11,392				



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□□□□□□□□□□

The above is a sample of the bargains this department has to offer the investing public. Watch this space, for each week we will have something new to offer.

. . . . ADDRESS . . . .

**LAND DEPARTMENT, PACIFIC OIL REPORTER**

**U. M. THOMAS, Manager**

**318 PINE STREET - - - - - SAN FRANCISCO, CAL.**



### Oiling the Roads.

The first wagon load of oil to be used for oiling roads in this section was hauled out to the adobe hill this week and the work of applying on the oil is now going on under the direction of Supervisors Pfister and Waite. The work will be watched with much interest for if it proves a success a number of miles of the principal roads will be thus treated. Oiling roads is not a simple process. The oil must be applied hot and worked into the loose surface of the road bed. At first it is nasty and unpleasant to drive over but later the road packs and becomes like asphaltum.—Paso Robles Record.

### Tank Steamers.

After quick repairs to her bow, which was punctured by floating ice in Behring sea on June 24th, the steamer Rosocrans sailed this week for Honolulu with a cargo of 23,000 barrels of crude oil in here steel tanks. Captain Peter Johnson is in command. The Rosocrans belongs to the Pacific Oil Transportation company.

The oil-carrying steamer, Argyle, Captain Gilboy, recently returned from Honolulu, sailed this week with a full cargo for Nome and St. Michael. The Argyle belongs to the Union Oil company. It is expected that the Rosocrans will return in time to carry another cargo to Alaska before the close of the season.

Considerable interest is being manifested by oil men at the present time in real estate in the vicinity of Eunice, thirty miles north of Crowley, in Louisiana. Several oil companies have been organized, and drilling on a number of tracts will begin immediately.

An oil expert from Lancaster, O., recently visited the vicinity of Churchville, N. Y., and made an examination of the petroleum indications there. His report was favorable, and a company will be organized to bore for oil.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, July 29th:

CENTRAL POINT CON.			
1,200 at	80.....	\$ 960 00	
ESPERANZA.			
1,000 at	1 10.....	1,100 00	
FOUR.			
300 at	70.....	210 00	
HANFORD.			
1 at	120 75.....	120 75	
23 at	121 00.....	2,783 00	
3 at	122 00.....	366 00	
3 at	123 00.....	369 00	
3 at	124 00.....	372 00	
1 at	124 00(S 90).....	124 00	
9 at	125 00.....	1,125 00	
HOME OIL.			
300 at	2 95.....	885 00	
1,625 at	2 95.....	4,793 75	
200 at	3 00.....	600 00	
100 at	3 00 (B 30).....	300 00	

### INDEPENDENCE.

3,000 at	16.....	480 00	
1,500 at	17.....	255 00	
JUNCTION.			
1,000 at	22.....	220 00	
MONARCH.			
100 at	52.....	52 00	
800 at	53.....	424 00	
300 at	54.....	162 00	
MONTE CRISTO.			
945 at	95.....	897 75	
200 at	95 (S 5).....	190 00	
OCCIDENTAL OIL.			
100 at	19.....	19 00	
OIL CITY PETROLEUM.			
1,200 at	29.....	348 00	
PEERLESS.			
10 at	14 50.....	145 00	
SOVEREIGN.			
530 at	38.....	201 40	
400 at	40 (B 90).....	160 00	
STERLING.			
50 at	3 05.....	152 50	
700 at	3 10.....	2,170 00	
SUPERIOR.			
3,000 at	06.....	180 00	

18,603 Shares	Amount \$20,165.15
S. F. GAS & ELECTRIC.	
20 at 68 00.....	1,360 00
SANITARY REDUCTION WKS.	
25 at 2 50.....	62 50

45 Shares	Amount, \$1,422.50
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### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	
Apollo.....	.40	
Asso. Oil Co Stk. Tr.		
Certificates.....	.22	.25
Aztec.....	.75	
Bay City.....	.10	
Bear Flag.....	.05	.10
California Standard.....	.10	
Caribou.....	.85	
Central Point Con.....	.50	
Chicago Crude.....	.15	.20
Clairemont.....	.35	
Esperanza.....	1.05	
Fauna.....	.04	
Four.....	.70	
Fulton.....	2.85	
Giant.....	.20	
Hanford.....	126.00	129.00
Home.....	2.95	3.00
Honestake.....	5.00	
Imperial.....	18.00	18.25
Independence.....	.16	.18
Junction.....	.21	
Kern.....	5.00	5.50
Kern River.....	10.00	14.00
Lion.....	.05	.06
Monarch of Arizona.....	.53	.54
Maricopa.....	.10	
McKittrick.....	.30	
Monte Cristo.....	.85	.95
Nevada.....	.31	
Occidental of West Va.....	.18	.19
Oil City Petroleum.....	.28	.29
Peerless.....	14.00	
Petroleum Center.....	.02	
Pittsburg.....	.45	
Piedmont.....	.10	
Reed Crude.....	.39	.41
S. F. & McKittrick.....	2.50	2.70
San Joaquin O. & D.....	5.75	
Senator.....	.68	
Shamrock.....	.15	.23
Sovereign.....	.38	.40
Sterling.....	3.05	3.10
Superior.....	.05	
Thirty-three.....		8 00
Toltec.....	.15	.30
Twenty-eight.....	4.10	4.30
Union.....		
United Petroleum.....		
West Shore.....	3.00	
Western Petroleum.....	.13	
Wolverine.....	.25	.60

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<b>9:30</b>	A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
<b>9:30</b>	A. M.—VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
<b>4:00</b>	P. M.—STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
<b>8:00</b>	P. M.—OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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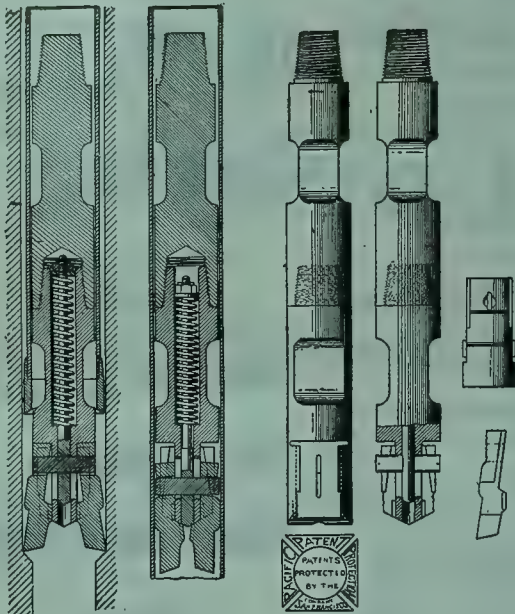
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Vol. 4. No. 40.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 8, 1903.

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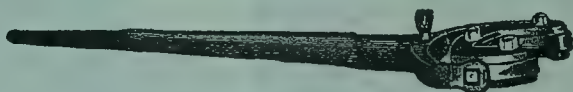
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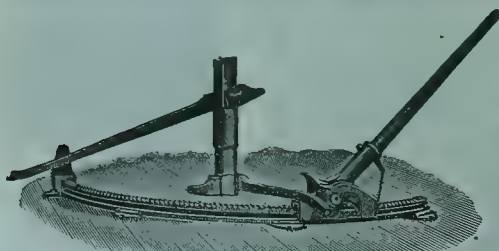


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# PACIFIC OIL REPORTER

VOL. 4. NO. 40.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 8, 1903.

PRICE, TEN CENTS.

## PETROLEUM IN UTAH

### Remarkable Indications of the Presence of Oil and Asphalt.

#### Every Reason for Believing that Oil Exists in Vast Quantities and that Development Work Would be Well Repaid.

There is probably no place in the world where there can be found so many different kinds of hydro-carbons as in the State of Utah, and probably nowhere else have the same elements and conditions received less scientific investigation. In Utah are found oil shales, oil, petroleum, paraffine, maltha, ozocerite, elaterite, gilsonite, and many other hydro-carbons in sufficient quantity to warrant a fuller investigation than seems to have been given, so far as the writer is informed. This may be accounted for by reason of the fact that Utah, being so rich in the more valuable minerals, these have engrossed the attention of capitalists and speculators to the overlooking of indications pointing toward oil development.

Along the borders of the great Salt Lake, indications are found, that, were they to exist in any other place, would have been thoroughly investigated, prospected and developed. Here we find every indication favorable to the development of natural gas. It is found in springs bubbling and boiling up constantly; it is found in artesian wells, swamps and various places that ought to satisfy the closest investigator.

Gas in artesian wells that have been giving out enough gas for ten years to do all the heating and lighting of large ranches, has been and is at the present time going to waste through the lack of enterprise. In some places enough gas is coming from large springs that, if it were properly taken care of, would answer all the requirements needed at most ranches.

This gas belt seems to lie along the east side of Great Salt Lake, extending from Salt Lake City north to Brigham City, and even from as far north as Logan, reports come of gas being encountered in drilling artesian wells. In one instance the pressure was so strong that the tools were blown out of the hole and operations had to be suspended.

There is on record only one instance where an organized, sys-

tematic effort has been made to develop oil and gas, and that is in Willard, twelve miles north of Ogden, where the Salt Lake Basin Gas and Oil company, organized in October, 1902, of which W. B. Wedell is president and D. B. Cook is secretary and treasurer.



Well at Willard, 10 Miles North of Ogden.

These, with other well-known business men of Ogden, incorporated this company, and raised among themselves sufficient capital to sink a well 600 feet. The hole was started with 6-inch casing and when the 600-foot level was reached, they were down to 2-inch casing. Of course it was impossible to accomplish anything with so small a hole and work was abandoned. In drilling this hole gas in immense quantities was encountered and also considerable oil. The oil strata, however, were not very thick, but so encouraging were the indications that the company is now raising money with which to install a standard rig and continue drilling operations.

Oil and paraffine are found in eleven different counties in the state; from one end to the other. Oil is found in immense bodies of shale, some of which are now being handled with proper equipment for the extraction of the oil.

Oil springs are found that are showing from the least traces of petroleum up to as much and more than two or three barrels per day; flowing out like so much water. The quality of this oil is the best ever found. Having a paraffine base it is easily refined, but is an excellent lubricating oil even in the crude form.

By refining, it produces naphtha, gasoline and several other light and signal oils, with about fifty per cent of light and heavy lubricating oil of the finest quality, reaching as high of 78°, and defying the refinery to produce its equal. The quality of the crude product and its possessing such remarkable lubricating efficiency, have been testified to by such eminent and experienced oil

before these reefs are projecting above the surface. At one point mineral locators, who have taken up the land for oil, have sunk a 2-inch pipe to a depth of sixty-five feet into this deposit, and from this pipe the oily fluid is slowly but constantly issuing. The pipe stands about eight feet out of the water and the unusual spectacle of a thick, tarry, mineral wax constantly oozing out of so small an orifice is seen. Where this seemingly inexhaustible supply of mineral wax or maltha comes from is a matter of conjecture, and the absence of an oil formation in the surrounding geological structure, as exhibited on the surface, makes the thing all the more perplexing. What few sandstones the writer saw in the neighborhood gave evidence of slight saturations and discolorations, but they were too insignificant to base a very rational theory of a very great oil formation upon. Where the source of the maltha lies is a matter for scientists to figure out.

Several miles to the northwest of these maltha springs, on the north shore of the lake, are said to be similar indications, and nearly twenty miles to the south, along the line of the new Lucin cut-off, which the Southern Pacific is building directly west across the lake from Ogden, workmen report that deposits of asphaltum have been encountered in the bed of the lake. In the vicinity of the maltha springs above referred to, prospectors have filed mineral location upon all government land surveyed, and they have even filed upon much of the unsurveyed land in the lake adjoining the strongest seepages.

The writer heard it rumored on the streets in Ogden, and evidently on pretty reliable authority, that the great Hogg-Swayne syndicate of Texas fame, had secured an option upon some of the land above referred to, with the declared intention of developing it within the next few months. There are many people who will await with interest the result of their exploitations.

The big Texas syndicate seems to have been investigating this Salt Lake field, judging from newspaper reports and common talk, but the writer on his trip about the lake failed to find anyone who could speak of his own knowledge regarding the matter. This syndicate is reported to have secured a great many leases and options on land in the vicinity of Farmington, but as we did not visit that place we are unable to

men as W. A. Tombly and Robert Hutchinson, the celebrated chemist of Scotland, and many others, who have made tests of the most severe kinds.

On the west side of Promontory Point, a high rocky peninsula which projects into Great Salt Lake about twenty miles on the north, is an unusual spectacle, and one which it would repay an oil prospector or geologist many miles of travel and all the inconvenience it requires to see. Liquid asphalt, or more properly speaking, maltha, is here found issuing from numerous springs in the bottom of the lake. In the vicinity of these springs or exudations, the waters of the lake are often covered with the oily fluid, showing in a most beautiful way the prismatic colors. For several miles along the line of the formation, reefs composed of asphaltum and sand and salt crystallizations are seen beneath the surface of the water. As the waters of the lake are rapidly receding it will not be very long



verify these reports. So far as we could learn the big syndicate has no representative in the State at present and consequently we are obliged to be content with the newspaper accounts written at the time their representatives were on the ground. We have no reason to question the accuracy of these reports and will therefore reproduce them for the benefit of the readers of this article. The following article was first printed in the Salt Lake Herald and afterwards copied in other newspapers and mining journals:

"If noted expert reports and the preliminary action of authorized agents count for anything, there is every probability that the day is not far off when Salt Lake will become a great oil as well as metal mining metropolis. Under options, leases and bonds no less than 48,000 acres of land, stretching along the shores of the Great Salt lake from here to Promotory, and 12,000 acres by right of location on the north end of the lake, have been acquired by the powerful Hogg-Swayne syndicate of oil operators of Houston, Texas. All the deals having been 'sewed up,' C. K. Roland, who came here several weeks ago to turn the trick, pulled out for headquarters yesterday and within the next few weeks, it is said, boring operations in the field will be under way.

"Included in the syndicate named are such men as J. M. Guffey, John Galey, Governor Frazier of Tennessee, and Attorney General Bell of Texas, operators whose combined wealth is anywhere from \$50,000,000 to \$100,000,000. The syndicate decided to come into this field in search of oil only after a most thorough study of it had been made by J. M. Guffey's expert, Professor Towl, who is reported to have declared that nowhere in America were the conditions as nearly identical with those of the world famous Baku fields on the shores of the Caspian sea, Russia, as along the borders of the Great Salt lake. He reported that there was no question as to the existence of oil in limitless quantity, but he said that it would not be encountered except at a great depth, or if it was he would be greatly surprised.

"As soon as machinery begins to arrive J. L. Lucas, the man who struck the first producing well on Spindle Top Heights in the Beaumont field, will arrive and serve the syndicate as field manager. Boring will begin at some point north of this city, and at intervals all the way from here to the north end of the lake, wells will be put down, and before the year closes it is expected that something like twenty wells will be under way.

"At the suggestion of Professor Towl a test well has been sunk between here and Farmington to

determine if seepage would not be found in a certain stratification. If it was, the professor said, there would be no doubt of results at great depth. His judgment in the first instance was verified and results were telegraphed to headquarters by Agent Roland.

"It is understood to be the purpose of the syndicate to form two companies to handle the enterprise—a real estate and an oil company—and they will work in harmony one with the other. The big operators, it is understood, calculate on spending a great deal of money before looking for returns, and that they mean business, Agent Roland declares, will be forcibly demonstrated within a



Oil Seepages Around Great Salt Lake, Utah.

few months."

Should this or any other syndicate holding large tracts of land succeed in developing oil in paying quantity about Great Salt Lake it will surely mean a fortune of larger dimensions. The field is so far removed from all other developed fields as to place it without the reach of competition. It is nearly 1,000 miles nearer the Eastern markets than the California fields. This saving in freight charges on the refined products would be a great thing in its favor. Chemical tests of the oil show that it produces an asphalt of unusual purity and great value. Utah asphaltum to-day commands from \$60 to \$75 per ton in New York as compared with \$35 for Trinidad and \$32 for the California product. Besides there are five transcontinental lines of railroad centering at Ogden and Salt Lake City that would become consumers of fuel oil if it could be procured in sufficient quantity to warrant its use. There would be no 20 cent oil in such a field. Dollar oil would be nearer the thing. Speaking candidly, we are of the opinion that oil, asphaltic oil, will be found in great quantities about the basin of Great Salt lake at no distant day if capitalists of the Hogg-Swayne type undertake the business. There are adverse conditions existing in this field that tend to discourage the average oil operator, and only by the intelligent expenditure of large sums of money and intelligent effort can success be hoped for.

U. M. THOMAS.

## INCREASING BUSINESS.

### The Pacific Oil Transportation Company Supplying Much Oil.

Business is rushing at the office of the Pacific Oil Transportation company.

The company has its supply tanks at the following points: Alameda Point, capacity, 37,500 barrels; Second and Berry streets, San Francisco, 1,000; Portland, Oregon, 55,000; Honolulu, 70,000; Alcatraz Landing, 100,000. The tank at Portland is finished, but the company will not fill the tank until December 1st, when it will begin to push its already large Portland business for all there is

in it.

The company is now receiving about 700 barrels a day from the Western Union wells at Santa Barbara. The bulk of this oil is shipped to Honolulu and Alaska. All the oil used by the company about the bay comes principally from the Kern River field, from the wells of the Sterling and Sovereign companies. The company has also secured a controlling interest in the Monarch Oil company in Sunset, and will soon have its own pipe-line from the Monarch wells to the railroad at Sunset, about one and a half miles. It is also very likely that the company will secure some valuable property in the Coalinga district, if this has not already been secured.

The business of the company is increasing very rapidly, and it is securing its full share of supplying oil to the constantly increasing number of consumers of fuel oil. It is doing a very large business in supplying oil to steamers and to the various reclamation schemes up the bay and the rivers.

The ship Marlon Chilcott, with a tankage of 16,000 barrels, and the steamer Rosencranz, capacity 25,000 is kept busy all the time carrying oil to the islands and to Alaska, the Islands alone requiring shipments from this company to the extent of nearly 35,000 barrels a month.

The officers of the Pacific Oil Transportation company are Captain Wm. Matson, president; J. A. Buck, W. H. Crocker, W. G. Irwin and George T. Cameron, secretary.

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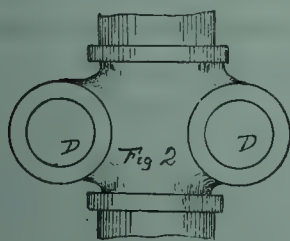
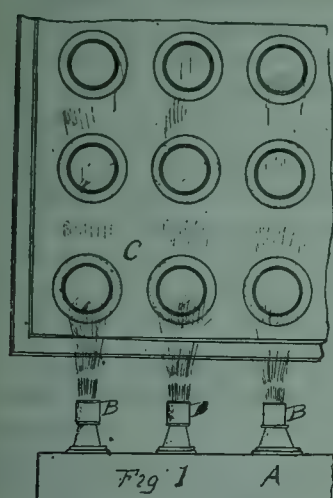
# CRUDE PETROLEUM FOR SHIPS

## Use of Oil Instead of Coal or Other Material in Course of General Adoption.

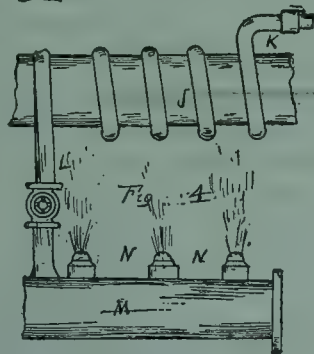
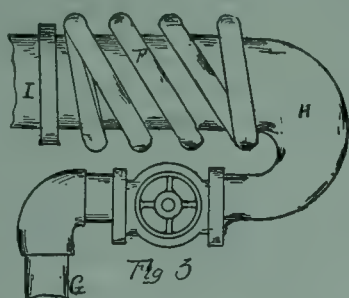
### Description of Methods which Have Proved Successful in the Use of the New Fuel, and Suggestions for Further Improvement.

The late successes in the application of oil fuel to the steam craft of the United States navy has opened a channel by which the same fuel can be applied to steam crafts of all kinds. The use of oil fuel as a substitute for coal or other material on shipboard is of course of general adoption, because the work has been in operation for some time; but it is not

oil is assisted if the process is complete. In figure 1 we present a sketching of one of the systems for developing this idea. A correspondent of the Oil, Paint and Drug Reporter observed a boiler which had been altered to answer the purposes. The flues were calculated to receive into them the drafts of heated air from the jet pipes (b, b, b). The front of



Oil Burning Devices for Ships.



Cooling and Heating Apparatus for Oil Fuel Burning on Ships.

the boiler, with the flues, is marked c. The supply pipe of oil for burning is marked a. This pipe carries the petroleum from the supply tanks to the jets. Air is admitted by a system of perforations arranged in the pipe so that when the oil flumes become ignited the proper distribution of air results. A strong flame occurs and the heat derived is carried by the suction through flues of the boiler. A uniform heating of the

tube system results and the contents of the boiler become intensely hot and a good steam generation occurs.

The oil, of course, must be heated so that it atomizes readily. This calls for proper fittings and adjustments. Figure 2 is a drawing of one of the pipe unions utilized in this service. It consists of the openings (d, d), which are properly threaded to receive the threaded pipes of corresponding size.

Complete combustion is one of the requisites of the tests, and this work is conducted with care. The next views show some of the apparatus employed by the people engaged in applying oil fuels to steamship craft service. This is a cooling arrangement, in which the supply of oil passes over the water pipe (l), in coil form the coil pipe being indicated (f). The oil is thus carried around the cooling pipe and the temperature adjusted as needed. The water enters the pipe at g, passes around the elbow (h) and emerges at i to waste pipe.

Figure 4 illustrates a device used by some steamship people for effecting proper combustion of the oil. The oil is heated in this case, and the process is brought about by the coil of pipe with the oil passing about the main tube (b) as at k. This pipe then goes down to l, where there is a valve, and thence to the burner (m). The jets are signified n., m. The flames are caused to produce the heat necessary to maintain a good stiff temperature on the oil conveyor (j), and thus the oil receives the proper heating before it is received at the temperature governing devices, one of which is illustrated in the previous figure.

### Sour Lake Wells.

A correspondent of the Beaumont Journal says that there are now about thirty flowing wells in the Sour Lake, Texas field, about twenty-three pumping wells, twelve wells not being worked at all owing to the low price of oil, seventy-nine wells drilling and fifty-six derricks erected on which work has not yet commenced. There are 105 wooden tanks averaging 12,000 barrels; seven iron tanks averaging 37,500 barrels;

one iron tank with capacity of 55,000 barrels. There are being built twenty wooden tanks averaging 1,200 barrels; one iron tank, capacity 37,500; two earthen tanks capacity 100,000 each; one tank 225,000 barrels; one tank 15,000 barrels, and one tank 3,000 barrels. From the flowing and pumping wells are taken daily about 35,000 barrels.

### Type Phounders' Phault.

We begin the publication of the Rocay Mountain Cyclone with some phew diphiculties in the way. The type phounders phrom whom we bought our out-phit phor this printing office phailed to supply us with any ephs or cays, and it will be phor or phive weex bephore we can get any. The mistaque was not phound out till a day or two ago. We have ordered the missing letters, and will have to get along without them till they come. We don't lique the loox ov this variety ov spelling any better than our readers, but mistax will happen in the best regulated phamilies, and iph the ph's and c's and x's and q's hold out we shall ceep (sound the c hard) the Cyclone whirling aphter a phashion till the sorts arrive. It is no joque to us. It's a serious aphair.—Exchange.

### A Texas Deal.

The Hogg-Swayne syndicate has sold property in Texas and Louisiana to the Franco-Texan Oil company, a Texas organization controlled by French citizens, for \$1,000,000. The members of the Hogg-Swayne syndicate were largely interested in the Texas Oil and Transit company, which has a fleet of barges ann ships between New Orleans and Port Arthur, and tankage at New Orleans and Port Arthur and several wells at Spindle Top, and it is understood that this is the company that sold out, and not the Texas company, which owns 800 acres at Sour Lake.

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# PRODUCTION OF ASPHALTUM.

## Significant Figures from the Report of the U. S. Geological Survey.

### The Production of 1902 Shows a Marked Increase Over That of 1901, and Indicates a Rapid Growth in Consumption for 1903.

The annual report of the United States Geological Survey upon the production of asphaltum during 1902, which has just been completed, is of more than usual interest, owing to the space given to the production of those grades used in the manufacture of various kinds of varnish. The statistics for the United States are supplemented by some interesting figures with regard to the production of manjak and gilsonite in Cuba and other islands of the West Indies, which are used in the manufacture of fine varnishes, substitutes for ceiling wax, etc. Following is an advance abstract of this report:

"The general term 'asphaltum' may be applied to the numerous varieties of hydrocarbons of an asphaltic base which exist in all conditions from the liquid to the solid state. In this report, however, it is specifically used to include all the purer forms of hard and soft bitumen, i. e., elsterate, gilsonite, albertite, wurtzilite, ulinalite, nigrile, brea, etc. The statistics of crude petroleum, which may also be included in the general term 'asphaltum,' are given in the report devoted to petroleum. A large quantity of asphaltic oil is produced in California, which is refined for illuminating and lubricating oils, and as there is no strict line of demarcation between oils which should be considered as petroleum and those which should be considered as asphaltum, the general rule has been observed to include under asphaltum only material used as such, for instance, the residuum from petroleum refining processes which is sold and used as asphalt. For the year 1902 asphalt of this character is reported separately under the heading 'by-product asphalt.' A slight duplication may arise in a few instances from this arbitrary classification, but it is impracticable to separate the two products absolutely. The term 'bituminous rock' includes sandstones and limestones impregnated with asphaltum or bitumen which are sold and shipped without previous refining. An inconsiderable portion of bituminous rock is treated to obtain asphaltum or bitumen, the product being sold as refined or gum asphalt.

"The following table shows the annual production of asphaltum,

etc., in the United States during the past five years:

Years	Quantity Short tons	Value
1898.....	76,337	\$675,649
1899.....	75,085	553,904
1900.....	54,389	415,958
1901.....	63,134	555,335
1902.....	99,659	677,594

"It will be seen from the above table that the production of asphaltum in 1902 showed a large increase over that of 1901, amounting in quantity to 36,525 short tons, and in value to \$122,259. The relatively smaller increase in value as compared to quantity was due to the very large proportion of bituminous rock, which is of less value per ton. The production in 1900, both in quantity and value, and the production in 1901 in quantity, have been the smallest reported during the last seven years.

"The following table classifies the production of asphaltum during the past two years, from which it will be seen that the gum asphaltum, the maltha and the by-products from oil refining are of vastly greater importance than the bituminous rock, used for paving, etc.:

1901		
Variety	Quantity Short tons	Value
Bituminous sandstone.....	34,248	\$138,601
Bituminous limestone.....	6,970	33,375
Hard and refined, or gum.....	19,316	333,509
Liquid, or maltha.....	2,600	49,850
By-products from oil.....		
Totals.....	63,134	\$555,335

1902		
Variety	Quantity Short tons	Value
Bituminous sandstone.....	57,837	\$156,963
Bituminous limestone.....	1,869	7,817
Hard and refined, or gum.....	22,321	264,817
Liquid, or maltha.....	1,605	20,172
By-products from oil.....	16,027	227,795
Totals.....	99,659	\$677,594

"From the above figures it will be seen that the production of hard and refined asphaltum, which includes gilsonite and similar purer varieties, increased from 19,316 short tons in 1901 to 22,321 short tons in 1902. The production of liquid asphaltum, or maltha, all of which was derived from California, decreased from 2,600 short tons in 1901 to 1,605 short tons in 1902. The quantity of asphaltum produced in the refining of crude oil during 1902 amounted to 16,027 short tons. In former years the quantity of asphaltum so produced has been included under the class 'hard and refined asphaltum.'

"The importation of asphaltum into the United States is chiefly from the island of Trinidad, off the coast of Venezuela, and this product is used chiefly for roofing and

paving. The product used in the manufacture of varnishes is produced chiefly in the United States though small quantities are imported from Germany, Cuba, Mexico, and other countries. In comparing the imports with domestic production, it is seen that the value of the domestic product in 1902 was about \$123,000 greater than that of the imported asphaltum.

#### PRODUCTION OF THE WEST INDIES.

"On the island of Barbados, nine manjak mines were operated during 1902, three of which were controlled by the Barbados Manjak Mines, Limited, employing from 70 to 100 laborers. No statistics of production are made to the government, but the customs returns showed that during 1901 1,043 tons of manjak, valued at £9,394, were exported from Barbados. The chief uses for manjak ore, or glance pitch, as it is sometimes called, is to make Brunswick varnish, used to insulate electric cables, etc. The exports from Barbados in long tons during recent years are reported as follows: 1897, 1,880; 1898, 1,160; 1899, 1,026; 1900, 1,120; 1901, 1,043.

"In addition to the output of paving asphaltum from the island of Trinidad, a liquid asphalt has been found in various parts of the island from which illuminating and lubricating oils can be distilled, and glance pitch is also found on the island, and is used for electric insulations and for black varnishes. Manjak, another variety, has recently been discovered in quantities in the island.

"The output of asphaltum in Cuba in 1901 amounted to 4,554 tons, valued at \$96,380, of which all but 500 tons were exported. Of the total shipments, New York received 3,300 tons, while 754 tons went to Europe, the bulk of which was shipped to Germany, and the remaining portion to England. The selling price ranged from \$4 to \$50 per ton. There were nine concerns engaged in mining asphalt.

"A Spanish company is engaged in developing several mines in the province of Pinar del Rio, Cuba. The company has entered into contracts to ship their product to the United States. The Habana mine, situated nineteen miles east of the city of Havana, was worked during 1902, and the product shipped to New York and European ports. The material is pronounced a pure gilsonite, suitable for varnish and japan manufacture. In this province the Arizona-Cuban Asphalt and Mining company, incorporated with a capital stock of \$5,000,000, has located asphalt properties near Jaruco and is said to own thirteen claims in the eastern provinces.

"Of the several deposits around the bay of Cardenas, in the province of Matanzas, the Perseveran-

cia alone was worked last year. It produces an inferior grade of asphalt, which sells in New York for \$20 per ton. The most productive of the mineral tar deposits near Sabinilla de la Palma was operated by the Hamel-Reynolds Asphalt Mining company. The mineral tar is won by sinking a well and removing from time to time the material which oozes into the excavation from the surrounding rock. The well owned by the company is 250 feet deep and yields about one ton per day. It is planned to erect a refinery and to continue the development of the property. Near the mouth of the Rio de la Palma a deposit of soft bitumen has been prospected.

"The most important asphalt mine in the vicinity of Santa Clara is on the Santa Floisa property in the Barrio de Loma Cruz. A portion of the product, which is characterized as a hard glance pitch, is used with coal in gas manufacture, while some of it has been sent to New York and used in the manufacture of paints and varnishes. Of the mines in the district of Yaguajay, near the boundary of Santa Clara and Puerto Principe, only one—the Santa Rosa Eufemia—is at present productive. The asphalt from this mine resembles gilsonite very closely, but contains a large proportion of sulphur. It is used in the manufacture of fine varnishes. The Talaren mine, which yields glance pitch, has been worked for several years, and the product is well established in the markets of the United States."

#### CHEAPER THAN COAL.

##### Results of Burning Oil in San Jose Public Buildings.

Last week a committee of Fresnoites went to San Jose to investigate the use of oil for fuel in the public buildings of San Jose. In speaking of the results of the examination Chester H. Rowell, one of the committee said:

"Coal is cheaper in San Jose than it is in Fresno and oil is dearer, notwithstanding, the reports of both these buildings are to the effect that there is a saving of more than 60 per cent by the use of oil, even after paying for the electricity. In the Normal school and the High school building the expenses for fuel are less than one-third of what they were formerly, and nearly all the expenses of taking care of the fuel is saved.

"The oil burns without a particle of smoke and produces very much more heat than could ever be got out of the same furnace with coal or wood. The expense of installing the plant would probably be between \$400 and \$500, exclusive of the tank and the motor. It may be that the board will decide to make the experiment in one building before adopting the system for the others."



## GREATER CONSUMPTION

An Eastern Paper Gives Interesting Facts and Figures.

The New York American gives some interesting facts and figures concerning the production and consumption of oil, that makes it apparent that the man with a producing well had better hold fast to it. That paper says:

"Inspired by the fear that nature's supply of oil is giving out John D. Rockefeller yesterday ordered the Standard Oil company to restore the price of crude oil to the figure from which it was cut last May, hoping thus to excite oil speculators to do more vigorous boring for the mineral. This means an advance of 3 cents a barrel for Pennsylvania oil and 2 cents for Ohio.

It is an admitted fact that with all the new discoveries of oil the production of refinable oil is decreasing. Much of the new oil in the Southwest is going to waste for lack of a method of refining.

Consumption of oil is running ahead of production by about 2,000 barrels a day, and the trust has only about 5,000,000 barrels of Eastern oil and 16,000,000 of Western ahead. Thus the reserve will be all wiped out in three years at the furthest.

But as the uses of oil are growing, and the world-wide demand is becoming stronger, the reserve is certain to be gone within a much shorter time.

As an illustration of the extent to which the oil supplies are disappearing it is announced that formerly there was a reserve of 40,000,000 barrels of Eastern oil and 24,000,000 of Western oil, making a total of 64,000,000 against a total of 21,000,000 at present.

The daily consumption of oil is about 60,000 barrels of Lima and 90,000 Pennsylvania.

Following its ancient policy of doing no speculation but of taking advantage of the discoveries of speculators, the Standard has watched with dismay the numerous dry holes bored throughout what seemed to be promising oil regions. The many failures have resulted in a disposition among speculators to abandon the business of boring wells, and it is to stir them up again that the price of oil is advanced.

Never before were the prospects of fortune greater for owners of really good wells, but most of the properties now being exploited are worthless.

In West Virginia this is especially true. Dust holes are numerous there and not more than half a dozen of the wells are producing more than a hundred gallons daily.

The Standard has just bought the output of large wells in California. It is the real owner of

most of the best wells in Texas, but it is believed Mr. Rockefeller can look ahead and see the end of the mineral oil business, unless some extraordinary find is made.

Petroleum is a modern commodity like natural gas. The gas practically disappeared and geologists believe the pockets of oil will soon go, too.

With an eye to the disappearance of mineral oil, the Rockefellers some time ago seized the Linseed Oil trust, and since getting it have made its stocks and bonds look inviting to the general public. Oil as marketed by the Standard company has been made to enter into every department of human life to such an extent that it is an absolute necessity, and when the natural fountains vanish there will be a tremendous demand for oil-bearing seeds. It is for the reduction of these products that the Rockefellers have the Linseed Oil trust.

An idea of the enormous export trade of the company is gleaned from the announcement last week that it had just bought three and a half miles of the Wilson shore opposite Southampton, England, for a big terminal dock, at \$225,000.

### The Pipe-Line.

Oil is running through the Bakersfield pipe-line into Point Richmond in a very satisfactory manner, the flow steadily increasing as the line becomes warmed up.

WANTED—To rent or buy Portable Drilling Machine, Star preferred, capacity 750 feet or more. Also 400 feet 7 1/4-inch casing. Address, with full particulars, Box 1, Pacific Oil Reporter.

## A Cheap Man.

A promoter named W. H. Baldwin has achieved considerable notoriety and has received much and apparently deserved condemnation for his part in floating the stock of a worthless mining company. For some years this gentleman has been a nuisance to this office by his systematic attempts to secure free advertising. His scheme is to make the papers print as much as possible in his favor free of charge. That is about all we know about this gentleman except that he has got himself into a heap of trouble. His cheap John methods we do know about, and what we know is sufficient to warrant us in advising any stock buyer or any company to steer clear of W. H. Baldwin. He hails from Albany, New York, or used to hail from that place. Lately he has been sending letters to this office from different places in California and Oregon. He may be all right, but if he is his methods are such that no one would be justified in taking much stock in him. If he has bothered other financial and oil and mining papers as he has bothered us Mr. Baldwin will probably get a lot of free advertising he does not expect.

### Price of Crude Oil.

A manufacturing company this week obtained a price on 1,000 barrels a day of Kern River oil, contract to be for one year, at thirty cents a barrel, f. o. b. at Bakersfield.

The company complained that the price was excessive. Before six months are over this will be regarded as a very low price.

Subscribe for the PACIFIC OIL REPORTER.

## Fell by the Wayside.

"Oil, Copper and Finance," a Los Angeles publication, devoted mainly to oil, has at last succumbed to the inevitable and gone the way of a dozen other oil papers that have been "started to fill a long-felt want." The PACIFIC OIL REPORTER was the first oil paper in the field, and while the others have come and gone, the "old reliable" has attended strictly to business, has kept its columns clean, and has continued to furnish reliable oil news from every oil district on the Coast. Lately its subscription list has grown more rapidly than ever. In a few weeks this paper will enter its fifth year of publication.

### \$330,000 an Acre.

Captain Frank Barrett, "Father of the Coalinga district," writes a letter to the PACIFIC OIL REPORTER, from Beaumont, Texas, in which occurs the following: "California don't know what an oil boom is. Sour Lake land is selling as high as \$330,000 an acre." A cipher one way or the other cuts no ice with Captain Frank.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter.

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The Temple News Stand, Chicago, Ill.  
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P. O. News Co., 178 Dearborn street, Chicago.  
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New England News Co., 14-20 Franklin street, Boston, Mass.  
Western News Co., 204-206 Madison street, Chicago.  
Pittsburg News Co., 97-99 Third avenue, Pittsburg, Pa.  
Rhode Island News Co., 139 Westminster street, Providence.

SATURDAY.....AUGUST 8, 1903

California is the only State in the Union that manufactures briquettes.

Practically the only manufactory of briquettes in this State is at Stockton where there is quite an extensive plant that manufactures briquettes from screenings of Wellington and other coal prepared with a binder made of asphalt from California oil.

While the process of making California briquettes has not been absolutely perfected, and while the use of these briquettes is not in every way satisfactory to the consumers, nevertheless it has been demonstrated that the use of briquettes as fuel is practical, both as regards economy of fuel and as to the amount of heat obtained as compared with the heat obtained from coal.

In the San Joaquin valley coal is worth anywhere from \$10 to \$15 and even \$16 a ton.

Briquettes can be sold at a profit at the rate of \$10 a ton and even less.

If the use of briquettes as fuel increases, the natural consequence will be that the price of screenings, which is the waste of ordinary coal, will increase on account of the growing scarcity of screenings.

Experiment has proved that a superior briquette can be manufactured from the lignite coal found in many localities in California, especially in Fresno and

San Benito counties.

In the Coalinga field is found an abundance of heavy 12 gravity oil so heavy as to make it rather undesirable for fuel purposes and yet it is just the oil needed in the manufacture of briquettes.

Experiments are now being made to combine the use of the lignite coal found in Fresno county near and contiguous to the Coalinga field, with heavy oil which can be produced in unlimited quantities in this field.

If these experiments prove the success anticipated, a briquette plant will be established in the Coalinga field.

The briquette manufactured at Coalinga would undoubtedly command a large and increasing sale throughout the San Joaquin valley where coal can not be sold except at a high figure and where the supply of wood now used as fuel is constantly decreasing and its price correspondingly increasing.

The lignite coal of Fresno has been used very extensively in the past; mainly by a company which formerly operated at Coalinga called the San Joaquin Coal Mining company. This company opened up quite extensive coal mines near Coalinga and built a branch road from Coalinga to the mines about four miles long.

Although a vast amount of coal was taken out from the mines during the years they were operated, the project did not prove a financial success owing mainly to the fact that the coal contained elements which did not make it a success as a fuel proposition. If this coal, however, is made into briquettes composed of lignite coal and an asphaltum binder mixed in certain proportions, combined with certain other ingredients, and subjected to hydraulic pressure, the result is a briquette clean to handle, so hard that it does not break in transportation or when thrown into bins, and which as a fuel is equal to the best Wellington coal, containing more heat units than the best Wellington coal, superior to Wellington both for domestic use and for power purposes, and which can be put upon the market at a profit at a price much less than the Wellington coal can possibly be furnished.

A briquette plant having a capacity of at least 100 tons a day could be established at Coalinga at comparatively small expense, and the entire output of this plant could be sold in the San Joaquin valley at a good profit.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

Subscribe for the PACIFIC OIL REPORTER.

Although there are a very considerable number of producing wells in the Coalinga field, there is a very considerable shortage of oil, and this shortage is liable to increase rather than decrease as the different companies operating pipe-lines from the Coalinga field, increase their transportation facilities.

The wells now supplying oil to the tanks of the Standard Oil company are entirely unable to furnish oil enough to keep the pumps of the Standard busy in forcing the oil from the branch Coalinga six inch line to the main eight-inch line at Mendota, where the two lines connect. The last report obtained by the PACIFIC OIL REPORTER from the Coalinga field was to the effect that the standard tanks on the west side of the Coalinga field, as well as those on the east side, were practically empty, and that the pumps of the Standard company could easily empty in one day all that the present wells could supply the tanks within a week.

The Southern Pacific company will soon have its own pipe-line from Ora station running through the fields to the wells on the west side, and this line will easily have a capacity of 1,000 barrels a day in excess of the present supply of oil. At least twenty wells are needed immediately in the Coalinga field.

The Standard is to-day paying about 20 cents a barrel at the wells for Coalinga fuel oil. This is equivalent to 28 or 30 cents a barrel as compared to the former rates when the companies were compelled to pay 6 cents a barrel in order to have their oil piped to Ora station and from 2 to 4 cents a barrel was deducted on account of water, impurities and waste.

The present rate of 20 cents a barrel at the wells is undoubtedly the lowest rate that will ever be paid for oil in the Coalinga field, and it is safe to say that with the increasing demands for Coalinga oil the rate will be in excess of 30 cents a barrel within a year.

More wells are imperatively needed in the Coalinga field and the different companies operating on proven ground should redouble their efforts to obtain a greater number of productive wells.

## FOREIGN ROADS.

California Method of Using Oil a Success.

The Municipal Journal and Engineer, a New York publication, reviews the report of the United States department of agriculture on the use of oil for laying dust. The specifications of City Engineer Evans of Bakersfield for road oiling are given in full.

The success in applying oil in

other places is described:

"Oiled roads have been tried in England, the oil being sprinkled on the road from watering carts. In Newmarket a gallon of oil was allowed to each square yard of road, and one application sufficed to lay the dust all summer, the cost amounting to about 1 cent per square yard. Three-quarters of a mile of dusty road near Aldershot was sprinkled with heavy Texas petroleum. One good soaking was all that was necessary, the oil forming a tough, leather-like surface on the road that cured the dust evil and helped to preserve the road. Experiments were made on other roads with equal success.

"In Bombay, India, oil was sprinkled on one of the main roads. Two applications were necessary, although the quality of the road was not of the best. Rain appeared to soak in the road, and the road did not dry out so quickly as portions not treated with oil. This, however, should be an advantage. A heavier oil than was used would not have soaked into the road material so rapidly.

Experiments made by Dr. Guglielminetti, of Monte Carlo, for oiling or tarring roads about Champigny were very successful. The road was well rounded and cleaned of all dust, laying bare the macadam. Hot tar was spread over the road in a very thin layer and fine sand was sprinkled over this before it cooled. After six weeks the surface proved to be non-slippery, extremely hard, even in hot weather, and the rain had no apparent effect, running off rapidly into the ditches. The cost amounted to about 1 cent a square yard. Other experiments were made with a mixture of tar and scoria, which was rolled with heavy rollers and rendered the surface impervious to water and prevented all trouble from dust.

## Ten Cent Oil.

Oil at ten cents a barrel has been offered at Sour Lake, and a price of 5 cents is generally predicted. It is not believed, however, that the producers are willing to repeat the folly of Spindletop operators and make long-time contracts for a delivery of oil at 2 and 3 cents a barrel. Beaumont is likewise passing through an era of depressed prices and the bottom of the fuel oil market appears not yet to have been reached.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

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IS THE STANDARD  
STEAM PUMPS, AIR LIFTS,  
GASOLINE ENGINES  
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THE AMERICAN WELL WORKS  
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## HOME OIL WINS

An Important Case Decided Last Week at Fresno.

The long litigation over the ownership of the famous Blue Goose oil well and the land surrounding it at Oil City, in Fresno county, was decided by Judge Church at Fresno last week, in favor of the possessor, the Home Oil company, and against Daisy D. Fewel, who claimed title to the land. The long-drawn-out proceedings have caused the parties to the action to lose some of the spirit with which the suit was begun and with which it was fought at the commencement of the action, but there is still a lot of fight left and the property is very valuable, being worth several hundred thousand dollars.

The contest began with rifles and revolvers poked under the noses of the Fewel forces by the Homestake Oil company, the predecessors of the Home Oil company in interest. The Fewel forces were driven off the grounds and though they renewed the effort a year later, they were again put to flight.

WHAT IT WAS ABOUT.

The suit was begun April 22, 1901, and was for the possession of the N $\frac{1}{2}$  of the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Sec. 20, Tp. 19 S., R. 15 E. It was claimed by Mrs. Daisy D. Fewel, the plaintiff, that acting as her agent, J. W. Fewel had located the property under the United States mining laws on February 3, 1889, and that in March, when he started to do his assessment work, J. W. Fewel and his agents were driven off the ground by the defendants and were told that if they ever returned they would be done for good and hard. In 1900 they returned and were again driven off the ground.

In the answer the defendant companies admitted that Fewel had posted notices, but asserted that he had not done so openly, but stealthily, and that the land had already been taken up under the United States mining laws on December 31, 1896, by an association of Visalia people composed of E. O. Miller, J. A. Hannah, W. Hall, E. G. Overall, L. E. Hall, Harry Levinson, R. T. Biddle and Charles H. Smith. They took up the entire northeast quarter of the section of which the plaintiff claimed only one half of one quarter, and in their answer they set forth the amount of money they had expended on the ground in developing its petroleum resources before they got a drop of oil.

The case was submitted on briefs in November, 1901, and the following April a decision was rendered denying the application for an injunction and the appointment of a receiver. In May the case came to trial and after a two days' trial a motion for the non-

suit was made, which had to be argued at considerable length. This was submitted on briefs and on October 30th the motion for a non-suit was denied. On May 25th of this year the trial was begun again and the case was submitted on briefs, resulting in the decision rendered last week and the entering of the order of judgment for defendant.

The attorneys for the plaintiff were E. A. Meserve, E. O. Larkin and U. T. Clotfelter, of Los Angeles, while the defendant companies were represented by M. K. Harris and L. L. Cory of Fresno.

### ANOTHER OIL SUIT.

Another oil suit that promises to be fought to a finish is that of L. S. Johnson against W. H. Kerr, the Mount Hamilton Oil company and John A. Lander, as guardian of J. A. and Walter Lander, minors, for the possession of a square piece of ground containing just one acre at the northeast corner of Sec. 24, Tp. 21 S., R. 14 E. Johnson claims possession of the land. Last week, Stanton L. Carter, of Fresno, the attorney for the defendants, in the Superior Court of Fresno county, filed a demurrer to the complaint on the ground that the facts it recites are insufficient and that also there is a misjoinder of parties. Separate answers were filed for each of the defendants. Lander denies that he asserts any claim to the property. Kerr also asserts that he has never claimed any interest in the property, that to the best of his knowledge and belief, Johnson never had any title to the land and that the real owner is the Mount Hamilton Oil company. The Mount Hamilton Oil company in its answer denies that Johnson ever possessed any title to the land.

## STANDARD IN TEXAS.

Said to be Forcing Independent Refineries Out of Business.

A dispatch from Sour Lake, Texas, says that it is stated that small independent oil refineries in the Texas oil fields are being forced out of business by the Standard Oil company, and that it will be but a short time until the latter is in complete control of the oil industries in this state. The independent refineries find themselves unable to dispose of their refined product, owing to the fact that the distributing factors and facilities are in the control of the Standard Oil. The Standard Oil now has its new refinery at Beaumont, which cost \$5,000,000, in full operation and the erection of another refinery of still larger capacity is contemplated. The two large refineries of the Guffey Petroleum company, situated at Port Arthur, are said to be Standard Oil concerns.

## THE WATER QUESTION.

Bakersfield Paper Says There is no More Water Trouble.

The Bakersfield "Californian" says that:

"The water question, once the bugaboo of many Kern county oil men, is now said to be practically a thing of the past. None of the dire results predicted have yet occurred and companies which were once having trouble with the water in their wells have met and conquered the difficulty.

"Last January, when the legislature was in session, a large meeting was held to consider the problem and a number of the chief operators expressed the opinion that unless legislative action was taken to prevent it, the oil industry would be threatened with ruin. They formulated a draft of a bill to be forwarded to Sacramento, and many of them urged its passage very strongly. It failed to pass. In its place there was passed another bill less stringent and more general in its terms than the one prepared at the meeting, which made it incumbent upon every operator to plug wells in which excessive amount of water might be found.

"Now the sentiment appears to have changed. No further complaints of water are being heard. Several companies which were reported to be having trouble are now doing very well. A little difficulty is said to now be experienced in shutting off water but with the use of four-inch pumps the results are found to be satisfactory. In the few cases—isolated ones in different parts of the fields—where it has been necessary to abandon a well on account of water no damage has resulted, so far as known, to any adjoining property.

"The consensus of opinion among oil men seems to be that the water question is now a thing of the past and so far as can be foretold will not again disturb operations in the Kern county fields. The problem was a new one to many operators and at first they feared very serious consequences and called for legislative action but it now appears that, for the present at least the need for this is passed and the problem seems to be solved by the operators themselves.

## VISALIA STREETS.

How Oil is Applied Successfully to Make Good Streets.

A gentleman from Visalia in speaking to a News writer regarding the oiling of streets said: "Visalia has had better success with her streets than almost any town in the interior, not excepting Fresno. The city council there made a contract with a man to grade and oil seven blocks of the city streets for \$800. This he did. He took land from the

streets which were above grade and filled up the streets below grade, and then he plowed up the streets to a depth of about eight inches. Then he put on one coat of oil and harrowed it in. After thoroughly harrowing he put on another coat of oil, harrowed again and then tamped it down, with the result that the streets so treated are as hard as asphalt, and will remain so all winter, and are absolutely dustless. A street treated this way this year will only require about four barrels of oil to the block next year to keep it in perfect condition for years to come.

"Did you notice any trouble about tracking the oil into the house and spoiling the carpets?" asked ye scribe. "Of course," was the reply "if any one walked across the freshly oiled street, while it was being harrowed and would then go in on a carpet without wiping the oil from his shoes he would take some into the house. But our streets are not in a condition that the dirt would stick to one's shoes more than a day or two. The tamping did away with that. Another peculiar thing I want to call your attention to" said Mr. Smith, "is the fact that if you have the street in front or to the side of your house oiled, you are but rarely troubled with flies or mosquitos. They don't seem to be able to stand the smell of oil, which is an added advantage of oiled streets. I see that some of your own town people here are taking up the matter and are going to oil the streets in front of their own houses. I should think that the city would be glad to do it as it would save money in the long run and give the people better streets than they have ever had. If you want to see how good oiled streets can be made just take a trip to Visalia."

## Oiled Roads a Success.

Supervisor T. J. Field has had the road leading from Salinas to Monterey oiled for almost the entire distance and it is now one of the longest stretches of oiled roadway in the State. The work has been done in a thorough and satisfactory manner. Patrons of the road were inconvenienced only a few days after the oil had been spread along the road, but now they are blessed with a smooth, thoroughly packed and dustless highway, one over which it is a pleasure to drive. Supervisor Mann, of the "cross-the-river" district, informs us that it will be the policy of the Monterey county supervisors to continue the oil road policy as rapidly as finances will permit, and that it is the intention to have that portion of the road to Salinas which is within his district oiled as soon as possible.—Evening Pajaronian.



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

The Nome paper reports an oil strike on the lower Yukon, and that as a result there was a general stampede from St. Michaels for the new oil field.

#### COALINGA.

The Roberts Oil company will be ready to spud in this week on section 1.

Messrs. Brynor & Smith have subleased from Fried & Brynor the N½ of the N¼ of the S¼ of section 25, 20-14.

The Octave Oil company that has recently come into the field is rigging up for well No. 1 on its newly acquired property in the NE¼ of section 22, 19-15.

Mr. H. H. Brix has resigned his position as manager for the Coalinga Consolidated Water company, and later in the fall will remove with his family to Fresno.

The California Oil Fields, Limited

for the first time this past week. One of the wells is flowing at the rate of at least 200 barrels per day, while the other is pumping nearly that amount of a rather light oil of a fraction over 20 gravity. The Commercial Petroleum company has not yet made contracts for the disposing of its production. Its 10,000-barrel reservoir is rapidly being pumped full at the present rate of production.

Another new company has been organized at Hanford on the 25th ult., under the name of the Coalinga-Pacific Oil company, with a capital of \$165,000 divided into 165,000 shares considerable of which has already been subscribed. The principal promoters of the new company are as follows: D. S. Fish, G. E. Shore, Robert H. Smith, W. E. Newport and J. O. Hickman. The company has subleased the forty acres from Mr. G. E. Shore on section

mond, Roberts, Union, Wabash and R. C. Baker. This is a total of twenty-one companies in this section of the field and makes the West Side as important as any part of the Coalinga oil fields.

#### KERN

The Nevada County company is now drilling wells Nos. 13 and 14, the first twelve wells being completed.

The East Puente, on 4, 29-28, has just completed its sixth well and will drill a seventh within thirty days.

The Southwestern Refining company's plant will probably be ready for operations by the 1st of October. The stills are now being installed.

The Consolidated Copper Oil company, which has leased a portion of the Monarch's property is now drilling its second well and has one finished.

The Alma Oil company, on 4, 29-28, of which W. E. Stevenson is general manager, will drill six additional wells at once. It has now two in operation.

The Monarch of California on sections 2-23 and 27, 11-24 at Sunset struck oil a few days ago in its third well at a depth of 500 feet. The work is being continued.

The Associated has installed a new water pumping plant having a capacity of 7,000 barrels a day. It will be used

28, adjoining the Wolverine, Wilson, Kern River, East Puente and San Joaquin companies, is now drilling again on its property and will sink ten additional wells. It has twenty-four wells finished and pumping.

The name of the company recently organized by Dr. C. T. Deane, of the California Petroleum Miners' Association, is the Veteran Oil company. The company will drill a dozen wells at once on its holdings of twenty acres in the Kern River field. The company is capitalized for \$500,000. A limited number of shares will be offered. Already applications for this stock are pouring in.

The Union Pacific, operating in the Carisa district, started up again this week. Their well is down over 400 feet, and oil seepages are abundant, indicating a heavy body of oil sand below. The company has funds sufficient to enable them to drill 800 or 900 feet. No water sand has been found in the well. The Wright well, about a mile from the Union Pacific is over 600 feet deep, with plenty of oil seepages, and an encouraging prospect.

The Sterling and the Sovereign will begin paying dividends as soon as they can get sufficient development done to enable them to fulfill their contracts—



Some of the Wells of the Peerless Oil Company, Kern River District.

has completed well No. 15 on section 27 and although it has not been pumped, it promises to be a good producer along with its neighbors. Work on well No. 16 will begin this week, while the derrick for No. 17 has been erected some time ago.

Mr. J. H. Larson of the Union Oil company, has laid in a full stock of all kinds of fishing tools and under-reamers which can be rented or purchased outright. In the past it has often been difficult to procure the necessary sizes in the various fishing tools and under-reamers; this trouble is now alleviated as three companies in town are handling such tools.

The Valley Water company has just finished another water well and installed a new boiler and engine to supplant the old gas engine that has been in use up to this time. The California Oil Fields Limited and the M. K. & T. are exclusively using the water from this company, and owing to the greater activities of the former company it necessitated increasing the water supply.

Among the best producing wells in the west side of the field are those of the Commercial Petroleum company, which have been finished recently and pumped

7, 20-15 and will begin operations there after effecting permanent organization and electing officers.

The Coalinga Oil News is a new paper recently started in Coalinga. Its last issue contains the following:

The companies that are producing oil in the West Side section are as follows: Main State, 5 wells completed; Commercial, 2 wells completed; El Zuma, 3 wells completed; Confidence, 2 wells completed; El Capitan, 2 wells completed; K. C. Oil, 2 wells completed, 1 drilling; Philadelphia-San Francisco, 2 wells completed, 1 drilling; Fresno-San Francisco, 2 wells completed; Penn.-Coalinga, 2 wells—1 pumping, 1 ready to put on pump; Esperanza, 2 wells completed, 1 drilling; St. Paul, 1 well completed; R. C. Baker, 1 well completed; Section 7, 1 well nearly completed; San Francisco Crude, 1 well completed, 1 drilling; Mercantile Crude, 2 wells completed; Caledonian, 1 well finished in first sand—will be made deeper later—1 well drilling. All these wells are producing oil or are in the sand and will be classed as producers soon. In addition to the companies mentioned above, the following companies are operating or ready to operate: Blue Dia-

mond, Roberts, Union, Wabash and R. C. Baker. This is a total of twenty-one companies in this section of the field and makes the West Side as important as any part of the Coalinga oil fields.

The Pacific Coast Oil company is drilling a water well at Pond station, ten miles from Bakersfield and hopes to get artesian water, as the formation is favorable.

The Southern Pacific has completed its 55,000-barrel tank on the San Joaquin. Unofficially it is reported that it is the company's intention to build four more in the near future.

The Santa Fe is developing its property on sections 24, 23, 27 and 28, at Kern River. Four additional wells will be drilled at once and it is reported that more work may follow shortly.

The Petroleum Center company is about to put in a pipe-line from its property to the railroad. This company is now just resuming operations after being shut down for several months. It is now installing a pumping plant.

The Eastern Consolidated Oil company is installing its boiler at the refinery near the railroad and the plant is expected to be in operation soon. A pipe-line is to be put in from the company's wells to the plant to convey the company's oil.

The Knob Hill Oil company, on 4, 29-

amounting to 125,000 barrels a month—which they hope to be able to do within a very short time. The Sterling has now two strings of tools running and the Sovereign one. The former recently finished a well at a depth of 1260 feet without going through the oil sand. This is one of the best producers on the property or in the field.

The Peerless Oil company is now pumping very nearly 5,000 barrels a day. In a few days it will be pumping over 5,000 barrels a day as the deepening of two of the wells first drilled by the company will be completed, and a new well, No 25, will soon be finished. The drilling of new wells will be continued, but the policy of the company will be to keep the wells already drilled in good condition so that they will be able to pump their full capacity of oil. As an illustration of the value of keeping a well clean it may be mentioned that one of their earlier wells for nearly a year yielded an average of only fifty barrels a day. This well was thoroughly cleaned out and deepened and now for several months has pumped at the rate of over 250 barrels a day with no diminution. Of the three rigs owned by the company two of them are kept busy in



keeping the wells now completed in condition. This is an example that could well be followed by other companies in the Kern River and other fields.

The Southern Pacific company has obtained from the Associated Oil company some land on the San Joaquin property convenient to the track and overlooking it so that there is a good fall from the land to the loading racks of the railroad, and on this land is erecting some large storage tanks for the oil it obtains from different sources, some from the Associated and some from other companies not in the Associated. There is absolutely no significance in this, and every attempt to make this a proof that the Associated has turned its affairs over to the Southern Pacific or is about to turn its affairs over to this corporation is without foundation. The Associated is in better shape to-day than it ever was, and is getting in better shape every month. It was a big contract that Manager Porter undertook when he accepted the management of the Associated, as there were more difficulties to be mastered than anyone not acquainted with the situation could possibly imagine. That he has succeeded as well as he has is a matter of congratulation both for himself and his com-

pany. When the big well was struck on the property by the Associated some of the stockholders conceived a scheme which might make it possible for them to get back the property by some fluke or other of law. But it looks as if the deal had been openly and knowingly made, and would stand as made. Anyhow the Associated are not worrying over the matter but are leaving the worrying part to the other side.

#### SANTA MARIA.

The casing for the Brookshire company has arrived and drilling will be resumed at once.

The Elliott company on the William Rice place in Cat canyon is down 500 feet and has encountered a strong flow of gas.

Another fine oil well has been located in the field south of Santa Maria, which further proves the excellence of this territory. The strike was made on the Hobbs place, about a mile east of the now famous Pinal wells. The new well is the property of the Union Oil company, which has been operating successfully in Lompoc.

The Pinal company tested the gusher this week by turning on the faucet and letting the oil flow. It is estimated that

pany, operating near Sargents, are to the effect that another strike may be expected any day in the company's new well. On Saturday the gas became so strong as to force up cobble stones to the surface. There was a series of these explosions and as they were of greater force than those which occurred in well No. 10—the first flowing well which the company developed—the workmen are of the opinion that a gusher will be the outcome of the latest development work.

#### SUMMERLAND.

J. F. Miller, who recently purchased the property of the Mineral Oil company, has renewed the lease of the ground from Mrs. M. F. Bishop and has five wells pumping. West of the Treadwell wharf four more wells, jointly owned by Mr. Miller and J. L. Bryson, are being placed in working order.

#### UKIAH.

The Ukiah Oil Development company's well is being pushed downward at the rate of about ten feet a day. The drill is still working in a hard stratum of sandstone. The average so far has been just 100 feet a week. Monday, casing was put down to shut off the flow of artesian water that was struck at the depth of 450 feet. The casing is now down 500 feet and Tuesday the drill

well is now 11½ inches. Mr. Youle, the veteran oil man, states that fresh water is never struck beneath the oil veins and consequently if there is oil it lies deeper than the present flow of water. Mr. Youle has spent a lifetime in the work—having been in the Pennsylvania oil fields when a boy, and for the past thirty years has been interested in the oil fields of California. He is very sanguine as to the result of the well.

#### WYOMING.

The American Consolidated well No. 3, on Sec. 14, is down 1000 feet and expectations are that the producing sand will be reached at any moment.

The Fossil Oil company, operating in the Fossil field, has filed a certificate of fully paid stock with the secretary of state. The company is capitalized at \$25,000.

R. J. Law, president of the Toledo-Wyoming Oil company visited the field during the week and was highly pleased with his holdings near Millis upon which a rig will shortly be placed. He says the situation looks good to him.

#### Midland-Pacific.

H. A. Rispin, now with the Midland-Pacific, says that new blood has been infused into the Midland-Pacific railroad enterprise, and that there is every reason to believe a road will be built from Sunset oil district to the sea.



Long Train of Loaded Tank Cars that Daily Leaves the Kern River Oil District.

pany. Although the Associated has not been in a position as yet to declare dividends and perhaps will not be able to declare any for some months the time will come when the company's financial condition will be a matter of agreeable surprise on account of the large profits it will be able to show. The company within a year will drill at least fifty wells, twenty-five of them being drilled before the first of next year on the Central Point property, and the rest of them along the marginal lines of the company's holdings. These wells must be drilled to comply with the terms of the leases, and to protect the company's property. The company is selling more oil every month than the month before, and is getting better prices for the oil. The lawsuit with some of the Shamrock's old stockholders is giving the company no uneasiness, as over 80 per cent of the stockholders of the Shamrock ratified the deal by which the Shamrock property became the property of the Associated. As a matter of fact the Shamrock people were extremely desirous of making the deal with the Associated as it was absolutely impossible for them to carry out the terms of their lease which required them to drill such a number of wells that they would have been entirely unable to go on with the work of development, and they went into the Associated as the only means by which they could possibly escape relinquishing their property on account of non-fulfillment of terms by which the

the yield is close to 500 barrels a day. On account of all the tanks being filled the company shut the well down again until more storage could be provided. The work on the pipe-line to the Pacific Coast railroad is progressing as rapidly as possible and when it is completed the directors will undoubtedly breathe a sigh of relief, as the abundance of oil and no place to put it, has been a source of much concern.

While there are no new developments in the oil workings in this immediate section that are at all startling, such as bringing in a gusher, there is progress regularly made in deepening the five wells now being drilled. The Union company are pushing vigorously work on three wells; the Crocker company on one, and the Lompoc company has reached a depth that will soon border on half a mile, which makes the stockholders distressingly anxious, as it was believed oil would be reached at a much less depth. There is talk of drilling the well to 3000 feet at least, and all express faith in the result. Within the next thirty days, well No. 2 of the Union company will be down to the depth that oil was secured in No. 1. The other two wells, Nos. 3 and 4, will require a much longer time in getting down, as it seems to be slower work this side of the range than over in the Western Union territory, where good wells are secured at a lesser depth than 2000 feet.

#### SARGENTS.

Reports from the Watsonville Oil com-

stood 520 feet. The water is pure and soft and the flow is estimated at about three miners' inches. It comes out of the sandstone. The diameter of the

Some local capital has become interested, and in a very short time new contracts for construction work will be begun.

**DEBENTURE SURETY COMPANY**  
INCORPORATED  
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A PROFITABLE MINE.

The Omaha Gold Mining Company is one of the best. Low capitalization of \$100,000; two quartz claims; ample wood and water on the property; no debts; close to railroad; company officered by bankers and practical mining men of San Francisco; no salaries to officers; no promotion stock; day and night forces at work on three tunnels taking out wonderfully rich ore, more than enough to pay all expenses of operation. The property was acquired with a two-stamp mill, which is to be replaced by a ten-stamp mill.

Less than \$10,000 worth of stock will be sold, which means such a small amount of stock will earn enormous dividends. Dividends of not less than 1% will be paid, beginning with October. The company will pay not less than 5% per month beginning with January, when the ten-stamp mill is in operation.

A few shares left at 5c per share; when sold the price will be doubled, possibly trebled. If you want dividend-paying stock, remit without delay.

DEBENTURE SURETY COMPANY (Inc.)

Rialto Building, San Francisco, Cal.

Mention this paper.



# HOW TO AVOID EXPLOSION.

## Oil Pronounced a Safe Fuel when Properly Handled.

### Methods Can Easily be Employed which will Always Prevent Disaster and Maintain the Good Character of Fuel Oil.

(Extracts from a paper in the Hawaiian Planters' Monthly, by Alvin W. Keetch.)

Energy is that which can and does produce change. It is known only by its manifestations.

Force is energy producing or about to produce change at some particular place and in some particular direction.

Work is the change produced by a force acting. It is useful or useless.

Power or source of power is force, passive or active, that can be controlled.

Time is a continual succession of infinite changes. It is a fluent with a uniform progression or increment.

Rate is the measure of the increment or progression.

Duration is the lapse or sum of the number of infinite increments between two particular events or changes.

Energy is a prime cause. It is the sum of all the activities above the zero potential. It is a fixed but unknown quantity.

When a considerable amount of work is done at one particular place, as when a quantity of combustible is consumed in an atmosphere of oxygen, then it is that the element of time enters into the action and determines whether it shall be a conflagration, an explosion, or the small, prolonged combustion of a lamp or stove.

Remember that the concussion, the noise and havoc of what we call explosion, are due solely to the shortness of time in which the work is done.

The hydrocarbons, as we find them in petroleum, are an ideal fuel, making no clinker and leaving no ashes. They are in such a condition that complete combustion can be accomplished and smoke prevented, and, for that reason and others, they commend themselves to anyone who desires cleanliness, as well as utility; and it is safe to say that true cleanliness now pervades the every-day operations of mankind generally as it never did before. The combustion of liquid and gaseous fuels can be accomplished and controlled with more ease and greater certainty than the solid forms, and, as remarked, without dirt. They begin to give out their required quantity of heat at the touch of the hand when conditions

and apparatus are right, and as quickly cease to do so at the closing of a valve. It is for these very good reasons that any of us requiring fuel, desire them, provided they can be gotten on a favorable commercial basis, together with the suitable apparatus for burning them. Safety also considered. There seems to be one great fault chargeable against them, and that is their so-called explosive nature, which we hope to learn is more apparent than real. Telling the average person that such combustibles as kerosene, gasoline and the like, do not explode, and never have exploded, has the same effect, I imagine, that a positive declaration of the roundness of the world would have had upon King Solomon, and we all know of his reputation for wisdom and several other accomplishments too numerous to mention.

The liquid and gaseous hydrocarbons do not explode, and never have exploded. Like water, when they are liquid, even gaseous, you may subject them to any temperature below disintegration, with no different results from those attendant on water under like conditions—that is, if inclosed. They boil, produce vapor, make pressure, run engines and condense again to their liquid form; in fact, the more volatile ones in mixture, as naphtha, are a better medium for converting heat into motion than is water. But—the “ifs” and “buts” are the stumbling blocks of our complex existence—every now and then up goes some container or tank loud in its explosion, terrible in its destruction—often attended by painful injury and death? Why? The question is proper, and it must be answered to your satisfaction. The innocence of the hydrocarbons must be established. The person last seen with the murdered is generally the big red apple to the monkeys of the coroner's jury till a more suitable substitute can be found. The liquid fuel being most in evidence, is the first to fall under suspicion. It can be seen, felt, tasted and smelt, and after the explosion there is burning with murderous intent, a ready-made scapegoat for blame, and the verdict of a quick conclusion. It is a victim of circum-

stances.

There is no energy in carbon, neither in hydrogen, so there can be no force, power or work, and consequently no explosion or destruction, with injury or death; and what do you say to that? You will find that the manifestation of energy becomes apparent only after the villain comes on the scene, and I have secured a numerous company of villains, which I will endeavor to show you in the act of making mischief; likewise getting other innocent fellows into trouble. We can hardly go further without having a glance at the fundamental principles of this affair of the “Average Man vs. Liquid Fuel.”

It is assumed that the division of matter can be continued mechanically in theory down to single units, called molecules, which units are defined as the least quantity of any substance in which its qualities inhere. The molecule is the physical unit of any substance, and the aggregation of those small units makes the substance, as the unit brick, when in numbers, make the wall. These molecular units are assumed to be composed of a different order of units called atoms, having entirely different ways of joining to form molecules. Obeying different laws: The molecule is one conception; the atom is another. Their relation to each other, as well as a mental conception of the two orders of units, is the great molecular theory by which it is sought to explain the phenomena of nature. The one is the physical unit and the other is the chemical unit, and they must not be confounded. These units, whether molecule or atom, must be extremely small, and it is said on good authority that if a drop of water were magnified to the size of the earth its molecules consisting of one atom of oxygen and two atoms of hydrogen, would occupy a space between the size of bullets and cricket balls. Let us not bother about their shape or general appearance, for that is useless speculation. The whole molecular theory some day may be supplanted by a better one, but that there are certain small magnitudes which we now call atoms, will remain.

Each atom of every elementary substance is accredited with a certain weight. The atoms of each elementary substance are assumed to be alike, so the weights of all atoms of one kind are alike. These weights are called the atomic weights, and are referred to the atoms of hydrogen as one, it being the lightest. The atomic weights of all the other substances are therefore heavier than that of hydrogen.

We are informed that petroleum is made up of hydrocarbons, mostly of a series in which the carbon increases by one and the hydrogen by two atoms in each successive molecule.

In the fuel oil, the lighter ones may be said to be in solution in the heavier ones, vaporizing at their respective flashing points, but not explosive.

Let the sharp jar of a fulminate or other atomic disturbance but

shake adrift but one single bond, and at once a mighty, far-reaching thrill pervades the mass from molecule to molecule. There is more than enough oxygen to satisfy the bonds in the new formations, and the peace-makers are rudely thrust aside as the oxygen atoms, aroused to their fullest activity, rush for the carbon and hydrogen atoms to form carbon dioxide and water. There is no energy per se in carbon, or in hydrogen, or in oxygen, but the product of their union makes apparent a certain fixed amount of energy for each atomic combination, and its liberation in an incredibly short time is the force acting along lines in every direction, which, when controlled, gives man power to rend as he makes it do useful work, but when uncontrolled, instantly hurls him into eternity.

I defy you to find them among our family of peaceful and well-behaved hydrocarbons. But—let us remember that all these operations of ours are conducted at the bottom of a sea of air, one-fifth of which consists of oxygen gas whose constitution is represented by two atoms of oxygen. Remember that there is a subtle property of gases which causes their molecules to sneak and creep like thieves, one kind among those of another. The nitrogen is there also, but it is absolutely inert, and acts as a dilutant; otherwise the explosion would be still more energetic. Still it does not explode, and, like the molecule of nitroglycerine, it would continue indefinitely. Here are the molecules of oxygen gas with those of the combustible, all moving among each other, till the molecular motion, due to the temperature of some small, near-approaching flame, shake adrift a single bond as before; then the buttresses of stability fail, down comes the mighty arch of high potential, instantly to form new and more stable compounds—carbon dioxide and water. These products are gaseous at the high temperature of formation, producing enormous increase of volume, attended with high pressure, and when the shortness of time is considered, are doing work that is making changes at such a rate as to be appalling when uncontrolled. It is just and due to the fuel as servant as well as to living beings as its masters, that every known safeguard should be employed to avoid setting this fearful trap, or springing it when set; there cannot be too many precautions for the reputation of the oil, provided, always, that they are in reality precautions. There is but one way, in my estimation, that will insure safety, and that is, not to permit the lighter hydrocarbons to vaporize till the burner is reached, for the burner alone is capable of taking down the ponderous arch of force, stone by stone, and hurling it where man directs. Any method of displacement that will always entirely fill the system with a liquid from induction valve to feed I am sure can be relied upon to prevent disaster and help maintain the good character I have endeavored to give to fuel oil. Don't try to make the system so much fool proof as vapor proof, prevent leaks, prevent spaces where vapors can form and I warrant you there can be no explosion of fuel oil, no matter how volatile its constituents are.



# PACIFIC OIL REPORTER'S

## OIL LAND DEPARTMENT

**Is the only Agency on the Coast Handling  
Oil Lands Exclusively**

### A Developed Oil Property For Sale at a Bargain

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**A Producing Property that can be Purchased for the Cost of the Development  
Work and Machinery.**

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Owing to dissatisfaction and disagreement among stockholders, the Land Department of the PACIFIC OIL REPORTER is enabled to offer what we consider one of the choicest bargains to be found in the California oil fields. A developed oil property in the Sunset District, Kern County, comprising twenty acres in the very heart of the field, 2½ miles from the railroad and less than a half mile from the new Jewett & Blodget pipe line that is now building. With two flowing wells of 150 barrels capacity each, together with two complete drilling rigs and tools; two 35-horse power boilers; two 15-horse power engines; 1,200 barrels capacity storage tanks, with camp buildings and everything that goes to make up a complete plant for oil development and immediate production. There is also several hundred dollars' worth of casing, tubing, pipe, etc. This property adjoins some of the biggest producing wells in the field. There is also a fine water well that furnishes water for all purposes. Title will pass direct to purchaser and no royalties to pay.

This property is in splendid shape for inspection and test, and the owners will afford every opportunity for the fullest investigation.

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The above is a sample of the bargains this department has to offer the investing public. Watch this space, for each week we will have something new to offer.

. . . . ADDRESS . . . .

## LAND DEPARTMENT, PACIFIC OIL REPORTER

### U. M. THOMAS, Manager

318 PINE STREET

- - - - -

SAN FRANCISCO, CAL.



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, August 5th:

CARIBOU.			
700 at	83		\$ 560 00
CHICAGO CRUDE.			
200 at	19		38 00
FOUR.			
100 at	69		69 00
HANFORD.			
9 at 130 00			1,170 00
HOME OIL.			
2,275 at	2 90		6,597 50
200 at	2 90 (B 5)		580 00
100 at	2 90 (B 20)		290 00
100 at	2 90 (S 90)		290 00
100 at	2 95		295 00
INDEPENDENCE.			
7,000 at	17		1,190 00
575 at	18		103 50
JUNCTION.			
2,800 at	22		616 00
200 at	23		46 00
KERN.			
50 at	5 25		262 50
MONARCH.			
8 at	50		4 00
100 at	53		53 00
100 at	54		54 00
MONTE CRISTO.			
100 at	85		85 00
700 at	90		630 00
200 at	92½		185 00
OCCIDENTAL OIL.			
1,900 at	18		342 00
OIL CITY PETROLEUM.			
4,100 at	29		1,189 00
PEERLESS.			
150 at 14 00 (S 5)			2,100 00
REED CRUDE.			
2,000 at	40		800 00
SOVEREIGN.			
850 at	40		340 00
500 at	40 (B 90)		200 00
STERLING.			
5 at	3 00		15 00
50 at	3 05		152 50
100 at	3 10		310 00

25,272 Shares Amount \$18,567.00

### EQUITABLE (POOL) GAS.

87 at 4 75..... 413 25

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		1.45
Apollo.....		.45
Asso. Oil Co Stk. Tr.		
Certificates.....	.24	.25
Aztec.....	.82½	
Bay City.....		.10
Bear Flag.....	.05	.10
California Standard...	.10	
Caribou.....		.80
Central Point Con....	.75	
Chicago Crude.....	.18	.20
Clairemont.....		.35
Esperanza.....	1.15	
Fauna.....		.04
Four.....	.69	.70
Fulton.....	2.85	
Giant.....		.20
Hanford.....	127.00	130.00
Home.....	2.85	2.90
Homestake.....		5.00
Imperial.....	17.75	
Independence.....	.15	.18
Junction.....		.22
Kern.....	5.25	5.37½
Kern River.....		13.00
Lion.....		.06
Monarch of Arizona...	.54	.55
Maricopa.....	.10	
McKittrick.....		.30
Monte Cristo.....	.85	.90
Nevada.....	.20	.35
Occidental of West Va	.18	.19
Oil City Petroleum...	.28	.30
Peerless.....	14.00	
Petroleum Center.....	.02	
Pittsburg.....	.30	.45
Piedmont.....		.10
Reed Crude.....	.40	.41
S. F. & McKittrick.....		2.75
San Joaquin O. & D....	5.50	
Senator.....	.69	
Shamrock.....	.15	.23

Sovereign.....	.40	.41
Sterling.....	3.00	3.10
Superior.....	.06	
Thirty-three.....		8.25
Toltec.....		25.
Twenty-eight.....		
Union.....		
United Petroleum.....		
West Shore.....	3.00	
Western Petroleum.....		.20
Wolverine.....	.25	.60

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<b>7:30</b>	A. M.—*BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.
<b>9:30</b>	A. M.—*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
<b>9:30</b>	A. M.—*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
<b>4:00</b>	P. M.—*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
<b>8:00</b>	P. M.—*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\* Daily      † Mondays and Thursdays  
° Tuesdays and Fridays.

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Folds up compactly and goes easily into the pocket.

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## MAPS OF THE KERN RIVER and COALINGA OIL FIELDS

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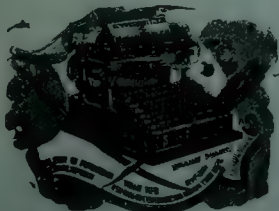
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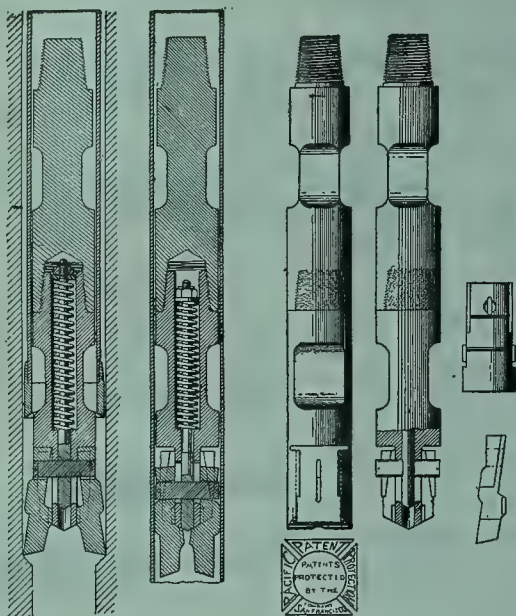
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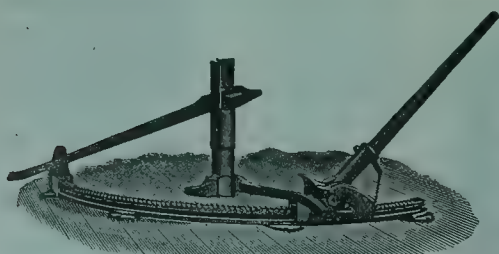


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# PACIFIC OIL REPORTER

VOL. 4. No. 40.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 15, 1903.

PRICE, TEN CENTS.

## OIL BURNING DEVICES.

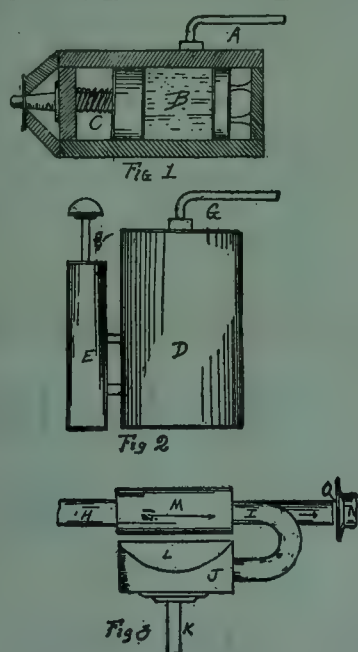
### A New Device for Burning Petroleum for Street Lighting, Fuel, Etc.

#### Air Pressure Employed in an Effective Manner by a Simple Method that Produces Splendid Results from Ordinary Crude Petroleum.

Some years ago patents were taken out for burning common illuminating oils under pressure. For a number of years previous, gasoline and kindred liquids had been burned under pressure with greatly increased intensity. The newer ideas involve the burning of every-day petroleum under pressure particularly adapted to this description of oil. The devices employed for this purpose have been very numerous and the patent office records illustrate hundreds of different kinds, some of which have been partly successful, while others have been total failures. According to "Oil, Paint and Drug Reporter," these patents cover devices for burning petroleum under pressure for street lighting, house lighting, burning oil for fuel, and headlights, stereopticons, etc. The range of service for the new form of bright light is hardly limited. In order that an idea may be had of this form of burning of illuminating oils, the annexed illustrations are presented. In Figure 1 is shown one of the crudest descriptions for burning oil under pressure. This process involves the employment of a cylinder of sufficient strength to resist interior pressure. The cylinder is usually about twenty-four inches long and about ten inches in diameter inside. Then there is a piston head and rod, and to the rod is fixed a spiral spring, c.

The oil in the cylinder is indicated, b, and this is the oil reservoir. The spring has to be very powerful to be effective. In fact, the system was only a partial success. The oil was admitted to the cylinder and the spring flange released, and the pressure exerted upon the oil by the disk caused the oil to be forced through the pipe connection, a. This pipe leads to the burners of the oil jets, and the intensity of the flame which burns is increased about 60 per cent because of the pressure. But in addition to the pressure, there is a vaporizing attachment consisting of means for mixing just enough of the air with the oil

sprays to make an improved inflammable composition. The stream of oil passing to the air chambers and the igniting point is heated to proper consistency by a flame furnished by the oil itself. The flame thus made serves for

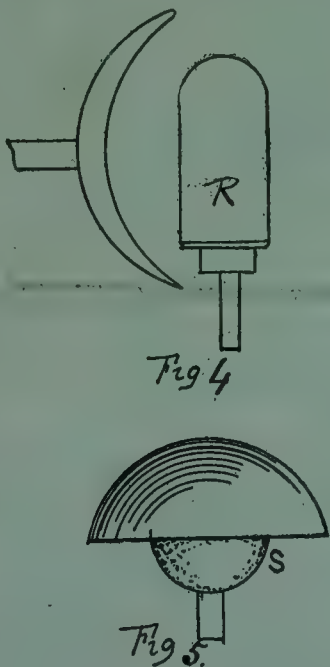


Methods of Burning Petroleum Under Pressure.

lighting searchlights, house lights, office lights, hotel and workshop lights, lights for stereopticons, etc. The oil composition is arranged to burn on a mantle nowadays, as will be illustrated later on.

The old-style spring and weighted-pressure devices soon commenced to give way for improved modes of exerting pressure upon the oil by means of air. Air is more flexible, effective and more readily managed. In Figure 2 is one of the usual types of air-pressure devices used in connection with oil-burning jets. It consists of the main oil reservoir, d, made of sheet metal and riveted laps. Usually this cylinder is about thirty inches high and about ten to twelve inches in diameter, for a cylinder of this size will hold sufficient oil and air to produce a suitable bright, white series of jets for many hours. The smaller

tube is the air pump contrivance, marked e. There is the customary rod, f, with proper valve fittings attached for pumping air from the atmosphere into the cylinder from the tube. This can be manipulated by hand. I saw some ordinary bicycle air pumps used for this work and they answered all purposes. The pump rod is signified f. First, oil is admitted into the main tank, d, until the tank is two-thirds filled. Then the air pump is operated and air pumped into the tank until the pressure is so great that the air refuses to permit the pump rod to be operated further. Then the air inlet is shut off and the pump disconnected. The cylinder, with two-thirds contents of oil



Pressure Light Devices.

and a heavy pressure of air inside, is now joined by rubber tubing to the burners, by means of the connection, g.

In figure 3 is a drawing of the arrangement of the common type of burners employed in this order of work. The main tube from the oil supply is h and this unites with the pipe g of Figure 2. The letter m designates in Figure 3 the thimble for joining the ends of the pipes and affords also an increased heating surface point. The oil fumes pass out through i and thence to the mouthpiece, n.

There is an interval between the two at o and air is given an opportunity to enter and combine with the oil fumes, resulting in creating a composition that burns with a fierce light and heat. The part m must be kept heated so as to vaporize the oil before the oil passes to the air-mixing point. This is done by permitting a little

of the vaporized oil to turn down through the curve in the pipe to the part j, where an arrangement is made for this vaporized oil to ignite at l and burn. The quantity of oil thus supplied is regulated with check cocks in the pipes.

In foreign countries this manner of burning petroleum oil under pressure on a mantle is employed extensively for sign illustration. The letters are usually molded from sheet tin and soldered to a sheet metal base. Then the tin lettering is perforated with small holes and the lights burned at the back. The lights shine through the holes and create a brightly illuminated sign.

The mantle, of course, is a delicate affair, after once it has been burned. These mantles, however, can be bought cheap at wholesale, although at retail the price is 15 to 25 cents each. A mantle will last for weeks if the lights are not jarred about. After one lighting the mantle will, of course, crumble to pieces if shaken. I have seen the mantles used for several weeks nightly on some of these oil pressure burning devices where care is used. The mantle is swung on a hooked wire affair arranged for the purpose. In this cut, Figure 4, the letter r marks the mantle. There is a good reflector placed just back of the light to develop the jet and make the light as strong as possible. Usually the light burned with the kerosene oil under pressure is quite white, steady and intense.

In figure 5 is a form of heater for the vaporizing of the oil which is used in some cases. It is a dome of metal, below which is a perforated ball connected to the oil supply pipe. The oil which is vaporized and mixed with correct proportions of air, passes through the pipe, to the perforations in the ball. Here the fumes pass out and are ignited, forming the burning jet. The dome retains the upward course of the jets, and tends to depress and distribute them over wider area, which is for the benefit of the device to be heated.

#### Compiling Oil Statistics.

H. G. McCarty, of Washington, D. C., is at Bakersfield compiling statistics for the United States geological survey. The special data that he is gathering relates to the oil land of the different counties, and will form part of an exhaustive report, covering the oil producing territory of the whole United States, which the government will publish this fall.



**DUTY ON OIL PRODUCTS.****An Important Ruling Recently Made by the Government.**

Assistant Secretary Armstrong has made an important ruling with regard to the application of the countervailing duty upon petroleum products produced in countries imposing duties on such products when imported from the United States.

The question has arisen upon a request from the collector at New York for the departmental construction of the effect of the decision of the board of general appraisers, handed down June 30th last, in which it was held that paraffine liquid and paraffine molle, articles made in part from Russian petroleum, but not in chief value thereof, are not chargeable with the countervailing duty, but being commercially known as paraffine are entitled to free entry under paragraph 633 of the existing tariff. Commenting on this decision, the collector at New York addressed a letter to the department stating that the conclusion of the board appears to imply that the countervailing duty provided by paragraph 626 of the tariff act should only be assessed where the article was not specifically provided for elsewhere, and the opinion of the department was requested on this point. Mr. Armstrong takes an entirely different view of the decision and its effect, holding that the countervailing duty must apply upon paraffine or any other petroleum product, if the petroleum constituent is the element of chief value, wherever it can be shown that the country of exportation levies duties on petroleum or its products when imported from the United States. The department's view on this point embrace a general discussion of the application of the countervailing duty on petroleum and are set forth as follows in a letter to the collector:

"You state that the closing language of the decision seems to hold that paraffin is entitled to free entry under paragraph 633 of the existing tariff act, without reference to the question as to whether it is a product of petroleum or not, and that the decision would seem to your office to mean that duty should be collected upon petroleum or the products of crude petroleum, under the proviso in paragraph 626, in cases only where the article is not specifically provided for elsewhere, as in the case of paraffin. An expression of the department's views with reference to the foregoing interpretation of the decision of the board is requested.

"The department does not concur in the opinion expressed by you, and it becomes necessary, in order to clearly set forth the department's view, to analyze the

decision pertinent to the subject.

"In G. A. 5,366 (supra) the board of general appraisers found that the merchandise in that case was not composed in chief value of petroleum, without stating what were the other component materials in the article, and 'following' Ropes v. United States, decided May 19, 1900 (unpublished), United States v. Rosenstein (60 Fed. Rep., 74), and Shoelkopf et al. v. United States (71 Fed. Rep., 694), the board held that the article was not subject to countervailing duty, but was entitled to free entry as paraffin under paragraph 633.

"The Rosenstein case did not relate to petroleum or its products. The question in that case was as to the duty on 'Seelig's coffee' or 'coffee extract' containing about 68 per cent in weight and 44 per cent in value of chicory, and used as a substitute for, or an adulterant of, coffee. The court held that the merchandise was dutiable under the provision for 'substitutes for coffee' in paragraph 321 of the act of 1890, and not as a preparation of chicory under paragraph 317 of said act. In the Shoelkopf case, from which the board quotes, the court merely decided that the oily principle described in the German Pharmacopeia as 'paraffinum liq. Ph. G.' was entitled to free entry as 'paraffin' under paragraph 671 of the act of 1890, and was not dutiable under the provision for 'products or preparations known as alkalies \* \* \* \* distilled oil \* \* \* and all combinations of the foregoing' in paragraph 76 of said act. The question of countervailing duty could by no possibility have arisen for the decision of the court in that case, for the reason that no provision for the assessment of countervailing duty on petroleum or its products was incorporated in the act of 1890, so that, of the cases cited by the board, the only one directly in point is that of Ropes v. United States (supra). In that case it was held that an article known as 'alboleno,' a mechanical mixture of Russian petroleum and ceresia, the petroleum amounting to only four-elevenths of the value of the article, was not liable to countervailing duty under paragraph 626.

"Construing the decision of the board in the light of the decision of the court in Ropes v. United States, the department holds that paraffin composed in chief value of petroleum produced in any country imposing a duty on petroleum or its products exported from the United States, is not free of duty under paragraph 633, but is liable to the countervailing duty provided for in paragraph 626 of the existing tariff act. The latter provision is in the nature of an exception and applies to the products of all countries imposing a duty on domestic petroleum or its products."

**OIL FOR ROADS.****The Best Oil Found to be of Twelve Degrees and Under.**

In making roads too much care cannot be exercised in selecting the kind of oil to be used. Even when the soil is of the proper nature, the road is properly prepared and graded, and the oil is applied in the most approved manner, all these precautions will prove of no avail unless the right kind of oil is used.

In Southern California one or two localities could not obtain the kind of oil they had been using before successfully, and were obliged to sprinkle on the roads an oil of much lighter gravity than that before used. The consequence was that the roads thus treated received no benefit from the oiling process, and in fact were in a worse condition than before treated.

It is perhaps unnecessary to note the fact that in the East paraffine oil has been placed on the roads with the result that the roads were put in a frightful condition and hereafter no more Eastern roads will be treated with paraffine oil.

The best kind of oil for road-making purposes is that which contains the greatest amount of asphalt, or which is, in other words, practically a liquid asphalt. There is a vast amount of

this oil, which can be obtained, especially in the Sunset field, which shows a gravity of 12 degrees or under. This oil can be heated to such a temperature, not excessively high, to enable it to be sprinkled on the surface of the streets or roads. There are a number of sprinkling devices now in use, some of which handle the heated oil very satisfactorily and some even claim to be able to sprinkle the heavy oil cold.

Sprinkling oil on the roads and streets of California is no longer an experiment. It is now an established fact that any road can be so prepared and so treated with a heavy asphalt oil as to be placed in a superior condition at a comparatively small expense. A road so treated will last indefinitely by having the surface renewed each year by the application of a small amount of asphalt oil and by having the few uneven places properly smoothed over or filled up. In time, such a street or road becomes practically an asphalt pavement, smooth, hard and free from dust, easily kept in repair and much less expensive than the road kept in condition by the ordinary methods of road repairs and sprinkling with water; in fact, in five years a well traveled street in any of our California cities will cost much less when treated with oil than when repaired in the ordinary way and sprinkled several times daily with fresh or even salt water.

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**Will Have a Capacity of One Thousand Barrels a Day, and has Contracted its Asphaltum Output for Five Years.**

The plant of the Southwestern Refining company, at the Kern River fields, now in course of construction, when completed, will be one of the most perfect of its kind asphaltum at about one-third the cost than any similar plant. By this process, for which Mr. Calloway has just applied for a patent, instead of a still being filled

and for these a good market is always available. The system invented by Superintendent Calloway is one on which refiners have studied and solves a problem which has troubled them many years

"In building the plant the several parts will be separated from each other by fire walls twelve inches in thickness, thus preventing a fire from spreading from one part to the other. One wall will separate the cooling kettles from the asphaltum house. Ample fire protection will be provided by the company.

"The asphalt house will be equipped with an overhead rail-

its refinery in operation within a few months and will handle its own oil from the Potomac property, in which its stockholders are interested and will do a large business in the field."

### EASTERN JULY REPORT.

**Great Activity Prevails in all Sections—New Territory Scarce.**

The "Derrick," in its monthly oil report, says that notwithstanding the enormous activity which has prevailed for several months past in the oil regions, there were fewer wells completed in July in the Pennsylvania districts than in June, and a drop of over 500 bar-



Wells and Sump Hole of the Monarch Oil Company, at Sunset.

in this country. The foundations for all buildings are now in place and the framework is completed for the asphaltum house. The stills and cooling kettles have just arrived and are being placed in position after many delays.

The "Californian" says:

"The plant will start with a capacity of 1,000 barrels of oil and 250 of asphaltum a day. This will be increased as business warrants and the refinery is to be constructed to permit this increase to be made with great ease.

"By using a new 'continuous process,' invented by Superintendent Ben Calloway, the company expects to be able to produce more

to its utmost capacity, the oil is allowed to flow from one to the other, the asphaltum finding its way to the bottom of the first still and the lighter qualities rising to the top and flowing into the next still. The crude oil is continually pumped into the still and by passing through the series of stills and coming out in a finished state, results in a great increase in the production per day and so reduces the cost accordingly. The company has contracted for the sale of its asphaltum for the next five years.

By this process not only asphaltum, but also distillate and lubricating oil are produced with ease,

road and barrels will be filled and loaded on the cars at the siding by means of this, thus saving a heavy expense for labor and materially reducing the cost of handling.

"Three reservoirs are now being constructed of 6,000 barrels capacity each, a water well has been drilled to a depth of 437 feet with 400 feet submersion, water having been struck at a depth of 37 feet. The well is equipped with 9 5/8-inch casing and a 4-inch working barrel and has a capacity of 80 gallons a minute, or nearly 5,000 gallons per hour. The Marsh steam and pump are being used.

"The company hopes to have

rels in the new production. Field work, however, made heavy gains, both in rigs and wells drilling. Nearly twenty-five per cent of the total number of wells drilled were unproductive of oil in paying quantities, although some of them proved profitable to their owners in a gaseous way. The average yield of the new wells was only a little over ten barrels each, which shows unmistakably the character of the territory which is now relied upon to furnish the new production. While the search for new territory has been stimulated by an advancing market, the possibilities of the discovery of new pools are lessening every month.



**Alaska Oil Fields.**

The well owned by the Alaska Development company at Kayak, Alaska, is down to a depth of 265 feet and is a flowing well, but as the company has not been in a position to handle the oil the well has been kept capped. The Alaska Development company has shipped north several rigs, and is arranging for the development of more of its lands, and in the near future will have several producing wells.

The Alaska Petroleum and Coal company (better known as the Lippy company) has its well, Lippy No. 1, down to the depth of 1,710 feet, and has a small flow of oil in the oil sands which is pumped to the surface by the pumps, and when the sand is taken in your hand, you can squeeze from it quite a few drops of oil. There is a heavy pressure of gas and there is no doubt but that in a short time the Lippy people will have a producing well.

The light rig which the Lippy people used was found to be too light to drill further in the Lippy No. 1, and they have ordered a heavy Standard rig, which they will be able to sink to a depth of 3,000 feet.

The Alaska Petroleum and Coal

company has commenced drilling on the No. 2, and the last report was that it was down to a depth of 100 feet. This was on July 20th. The formation at the surface of the Lippy No. 2 is the same as was struck in the Lippy No. 1, at the depth of 875 feet. The best oil experts from all over the world are at Cattella bay watching the operations of the Alaska Development, the Alaska Petroleum and Coal, and the Cooks Inlet company. Thousands of acres of land have been staked, and leases for the land at from \$15 to \$25 per acre are being signed.

Contracts on royalty basis of from 10 to 12½ per cent are being signed by Eastern representatives of the large oil magnates. In the Cordova Bay field and the Lake Eyak district, the surface is simply a lake of oil. The locators of this land in several instances had to wade through oil up to their waist to locate the ground. Doctor Schuman, representing Seligman & Co. of New York city, Mr. Areata, representing California oil interests, and R. W. A. Immons, representing Pittsburg interests and John Archbold and J. Worthington representing the Standard Oil interests, are all at Catella Bay watching the development and

reporting to their respective interests.

The trouble has been in this district that it had been feared that the district was not a deep well district, and that the flow of oil would be light, but the Lippy well at the depth of 1,710 feet demonstrates that the oil formation is the same as was found in the Oil City and the West Virginia fields. The grade of oil which is found in Alaska is of the highest grade both as illuminative and lubricating product.—Ex-change.

**The Midland Pacific.**

Another important if true rumor has found its way here with in the past few days to the effect that the Midland Pacific railroad will be built after all, says a Bakersfield correspondent of the Los Angeles Herald. It will be remembered several weeks ago it was reported that the project had been abandoned because the Standard Oil company had, by various means, succeeded in embarrassing the people who had agreed to float the bonds, with which money was to be raised for the construction of the road. This now is most emphatically denied, not only by the Standard, but by the agents of the Midland Pacific, and

it is said work will begin again at once on the construction. The bonding company above referred to did fail to make good, but other parties have agreed to finance the deal and Bakersfield will, it is now confidently predicted, be connected by a railroad with Port Harford on the Pacific ocean. So much has been said about the benefits which will accrue on account of the road that they need not be mentioned.

**Baku Fire.**

The extensive petroleum works at Balakhany, near Baku, Russia, have been burned. The fire is believed to have been of incendiary origin. Large numbers of boring towers and reservoirs of naphtha were destroyed, including those belonging to the Nobel brothers and to the Caspian company. Lack of water and fire-fighting appliances rendered the firemen helpless.

August 12th the Debenture Surety company paid its regular monthly dividend of 5 cents per share on its issued capital stock.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**Monthly Exports of Oil from San Francisco.**

COUNTRIES.	MINERAL, CRUDE, INCLUDING NATURAL OILS, WITHOUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
			Naphtha, including All Lighter Products of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been distilled.	
	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
May, 1903.										
British Columbia.....							555	\$265		
Costa Rica.....			2,420	\$427	2,110	\$416	69	31		
Guatemala.....					9,180	1,925	330	98		
Salvador.....			60	16	2,150	430				
Mexico.....			110	25	2,800	539	360	133		
Chili.....					140	31	226	62		
Chinese Empire.....							320	80		
British Australasia.....							1,938	491		
All other British Oceanica.....			3,040	434						
French Oceanica.....			1,950	368			59	28		
Alaska.....			12,080	2,324	4,687	1,071	140	70		
Hawaii.....					2,040	421	104	53		
Tutuila.....	2,534,698	\$84,260	28,760	3,254	36,600	7,688	12,301	4,733		
Total.....	2,534,698	\$84,260	48,420	\$6,848	59,707	\$12,521	16,402	\$6,044		
June, 1903.										
British Columbia.....							482	\$165		
Costa Rica.....					800	\$186	25	7		
Guatemala.....					4,500	896	2,634	1,123		
Honduras.....					820	158				
Nicaragua.....					500	110				
Salvador.....					290	58	345	107		
Mexico.....					500	75	20	6		
Chili.....							2,970	272		
British Australasia.....							1,434	418		
French Oceanica.....					250	53				
German Oceanica.....			330	\$73	1,235	256				
Alaska.....	840,000	\$28,000	38,700	8,601	31,480	6,684	2,204	1,053		
Hawaii.....	2,343,770	78,659	8,240	1,311	19,500	3,976	17,719	8,241		
Total.....	3,183,770	\$106,659	47,270	\$9,985	59,875	\$12,452	27,833	\$11,392		
July, 1903.										
British Columbia.....							169	\$60		
Costa Rica.....					650	\$126	82	22		
Guatemala.....					3,440	701	1,020	491		
Honduras.....			630	\$125	2,130	410				
Nicaragua.....							30	11		
Salvador.....			1,100	187	1,100	165	146	71		
Mexico.....							438	191		
British Australasia.....							3,000	688		
French Oceanica.....					140	29				
German Oceanica.....			8,030	964						
Alaska.....					2,634	367	622	375		
Hawaiian Islands.....	3,318,000	\$110,600	46,825	5,682	25,750	5,145	7,918	2,250		
Tutuila.....					100	24				
Total.....	3,318,000	\$110,600	56,585	\$6,958	35,944	\$6,967	13,425	\$4,159		



**WILL ENDURE.**

**No Prospect of a Failure in this Country's Oil Fields.**

Unnecessary alarm has been expressed over the probable failure of the Pennsylvania oil fields. Estimates have been made to show that there is not more than sufficient oil to last ten years longer. This is a pessimistic view. While it is true that the older fields are being exhausted, yet new fields are being opened and deposits of oil not now known will be discovered, so that it is the part of optimism to believe that the supply of petroleum of some grade will never fall very far below the demand.

While there has been a falling off in production of about one and a quarter million barrels in the high grade fields since the first of the year, developments in new territories are most satisfactory. About 1,500 barrels of better oil than the Lima brand are being obtained in Kentucky daily, while Kansas and the Indian territory are yielding 3,000 more. The decline in the oil fields is forcing operations in other directions, and thus the results have been beyond the most sanguine expectations.

We have made no mention of the Texas or Alaska or California or Wyoming fields, all of which are full of promise. The refiners have found a way to produce a good grade of illuminating oil of the Texas and California petroleum, and the Wyoming and Alaska grades are said to equal the Pennsylvania oils. We see no prospect of a failure of the supply for a long time to come.—Paint, Oil and Drug Review.

**Oil in China.**

An intelligent Chinaman, whose name is not given for obvious reasons, when questioned about the existence of petroleum in the Flowery Kingdom, remarked that there was no doubt about it, but the superstitions of the people prevented the development of the oil fields. He was well acquainted with a native mining engineer who stated that there were greater coal deposits in China than in any other country on earth. He also claimed that there were strong indications of the presence of great basins of oil existing in an extensive belt passing from the southeast across an extensive area to the northwest. He had discovered upon the surface of the streams along this course substantial specimens of a thick and greasy petroleum. This representative of the ancient country affirms that it is impossible, under the present government regime, to develop the mineral resources as long as the Empress Dowager lives. She is seventy-eight years old, and as superstitious as the poorest Chinaman.

**California Combined.**

Recently the PACIFIC OIL REPORTER has received several letters asking questions concerning the California Combined Oil Co., several of which we could not answer on our own authority, and so wrote the president of the company, Judge Z. N. Goldsby of Oakland, in reference to the affairs of the company.

The Judge sent us immediately the following reply:

OAKLAND, Aug. 11, 1903.

W. B. WINN, ESQ.,

DEAR SIR:

In answer to your inquiry, I have to state:

In well No. 2 (No. 1 being a water well) the California Combined Oil company struck oil at about 1100 feet, but being troubled with water, which had to be and was shut off, some delay was incurred; afterwards a sand bucket was lost in the well, which occasioned further delay and expense in fishing for the bucket, which was partially removed. Then the drillers desired a vacation, and owing to this and the extreme heat at the time, when the well was down to a depth of 1331 feet, the board decided to shut down TEMPORARILY. Very recently the members of the board (except 2), visited and examined the works and decided to resume work and to complete No. 2, and we are now making the necessary arrangements and will proceed with the work at once. Our lands consist of 7 1/2 acres PATENTED land upon which the company owes only \$250, and we have other LOCATED lands in Kern River, in Sunset and in McKittrick districts. The company is practically free of debt and has money in the treasury.

Respectfully,

Z. N. GOLDSBY.

**TROUBLED WITH WATER**

**Precautions Taken Against Water in Russian Oil Fields.**

The "Petroleum Review" says: "The Minister of Agriculture in Russia has now made known his decision in regard to the use of the water-flush boring system on oil fields, based on the findings of an expert committee, namely, that in localities, the petroliferous nature of which has not yet been proved, water-flush boring may be carried on without any restriction; on proved oil fields, water-flush is to be permitted only in such cases where the district mining engineer, together with the local Oil Fields Preservation Committee, will find that it will not involve any damage to the oil deposits, and the granting of the written permit for the purpose is to be accompanied by regulations to be observed in the use of the water-flush system. The next step toward the preservation of the oil fields from the water danger should be the institution of a committee to watch that in all wells the water should be properly shut off, according to certain prescribed regulations, and with powers to enforce these regulations.

At present at Baku the question of water shutting is left to the discretion of the producers, with the result that the productivity of some of the best parts of the Baku oil fields, Romany [in particular, has been seriously affected. At Grosny the question has already been decided on principle, and we understand that regulations are shortly to be enforced, these having already been drafted.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

**AT THE ISLANDS.**

**Oil Has Proved an Unqualified Success.**

The Honolulu "Advertiser" says that the substitution of crude oil as fuel in place of coal in Hawaii is proving an unqualified success. "On Maui, the Haiku, Paia, Hawaiian Commercial and Kihai plantations are using oil. On this island Kahuhu, Waielua, Oahu and Honolulu are using it, and Ewa will be in a few weeks. In this city the Young building is burning oil, and recently the Rapid Transit company converted all of its furnaces into oil burners. So far as reported, the change is working satisfactorily on all of the plantations, with a uniform reduction in cost of, approximately, 30 per cent."

**Sour Lake News.**

The Oil News has it from a reliable source that the land owners between Sour Lake and Saratoga have granted right of way for the entire distance between these points to six different pipe-lines, and the lines are expected to be rushed to completion. It is evident from this that the oil output from the Saratoga field and intermediate points will be promptly handled.

The Spindletop Power company's well No. 2, which has had several blowouts within the last week, had another tremendous one at 11 A. M. yesterday. The pressure of the gas forced 700 feet of 2-inch pipe clear through the top of the derrick, landing some of it a 100 feet away and doubling and twisting it out of all shape.

**W. A. BROPHY,**

914 Mutual Savings Bank Bldg.,  
708 Market St., San Francisco.  
Telephone, Green 816.

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HANFORD



## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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No attention will be paid to letters inquiring concerning the standing of oil companies unless accompanied by money or express order for two dollars for each company concerning which information is desired. The editor of the PACIFIC OIL REPORTER is compelled to adopt this rule on account of the increasing number of inquiries, which have taken up much valuable time.

Entered in the Postoffice at San Francisco, Cal., as second-class matter

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
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Rhode Island News Co., 139 Westminster street, Providence.

SATURDAY.....AUGUST 15, 1903

Patience is a virtue the exercise of which is always commendable. It can also be said that he who exercises this virtue under certain conditions is particularly worthy of commendation.

It should be understood at the outset that the man who invests in the stock of an unproducing oil company, or in the stock of a company which may have good holdings and producing wells, in a locality where there are transportation facilities—the man who invests in the stock of oil companies when such conditions exist must make up his mind to be patient.

The PACIFIC OIL REPORTER is in receipt of daily letters from almost every State in the Union asking us to tell why such and such companies do not pay dividends, how great these dividends will be, etc.

Here is a letter in front of us from Wisconsin asking about a Sunset company which has a large acreage of first-class oil land, producing wells, oil in the reservoir, etc. All the conditions are favorable for a prosperous future: Yet there are no dividends, and there can be no dividends until the company has the facilities of rail road or pipe-line transportation, and has made a contract for the delivery of a large amount of oil within a certain time at a fair price.

Even then there ought not to be dividends until certain im-

provements have been made which will increase the productive, storage and other facilities, and until a sufficient sum is placed in the treasury to meet expenses that are liable to arise.

There are secretaries and managers of first-class companies who are pestered beyond reason by stockholders large and small (mostly small) who are continually writing about their stock, especially about the big dividends they expected to receive.

Just exercise patience. Remember that any business has to be put upon a paying basis before it can be made to declare a dividend. Remember that it takes more than good oil land and two and three good wells to develop a profitable oil business. Remember that there must be pipelines, storage tanks, reservoirs, a big production and large contracts for the sale of oil before a company is on a dividend-paying basis, and remember too that prices for oil, while steadily advancing are still very low. The average price for oil at the wells is still 20 cents a barrel, and except under the most favorable conditions there is very little money in oil at that price.

If your company has good oil land, the oil is far better in the ground to-day than if sold at 20 cents. Your company is making money to-day by not selling its oil at 20 cents if in the course of six months it receives 30 cents for it. It costs nothing to store it in the ground, it is not decreasing in quantity or deteriorating in quality. It is in the ground, nature's reservoir, and it is better there so far as you are concerned than it would be in some manufacturer's tanks at a 20 cent rate.

Just be patient. Your company is all right. Wait until the pipeline or the railroad gets there. Wait until you have wells enough to make a production that amounts to something. For remember that there is greater profit in selling oil at the rate of 1,000 barrels a day than at the rate of 500 barrels a day.

Wait until you have tanks and storage capacity. Wait, in fact, for a number of conditions to be fulfilled which must be fulfilled before your company can safely declare dividends.

Remember, also, that on account of the continued nagging of stockholders many companies, not all oil companies, have declared dividends, which should not have been declared, as the money thus used to stop the noise of the stockholders should have been used for a reserve fund or for needed improvements.

Exercise patience, and don't start up a howl every now and then just because your company, that is keeping still and thus doing the very best thing it could, is not paying dividends.

According to the best expert opinion, the supply of eastern ore will soon be exhausted. Probably no territory in the world needs a greater amount of iron than the Pacific Coast. Not only is the home consumption of everything in the line of iron and steel very considerable, but the export trade is rapidly increasing.

We need immense smelters about the bay as much, perhaps, if not more, than any other branch of manufacture.

We need iron for ships, for stoves, for buildings—for every purpose imaginable, and at present the supply is limited to the iron that in a raw or finished state is brought here from the east.

But the eastern supply is diminishing and the price is increasing. The "American Manufacturer and Iron World," in its last issue says:

"In May, 1901, Charles M. Schwab, president of the newly formed United States Steel Corporation, stated before the industrial commission, at Washington, that the corporation had 'over 500,000,000 tons of iron ore in sight,' and that 'if the consumption of iron ore in the Northwest goes on as it has in the past, it will not last very long, perhaps 60 years.' In the year just preceding this testimony, the Lake Superior ore shipments amounted to 20,593,537 tons. If there were a total of 1,000,000,000 tons, it would take, without any increase, 54 years to exhaust it at the 1900 rate.

"But only two years after the shipments (1902) increased to 27,571,121 tons and the belief is that this year will show a further increase. Comparing 1893, when the shipments were 6,065,716 tons with 1902, there was an average increase, from one year to the next, on a compound interest basis, of 18.3 per cent. This would be a very unfair standpoint, because 1893 was a very poor year, showing a heavy decrease from the four previous years. But by taking 1890 as a basis, we use a year which will show the least annual increase. The 1890 shipments were 9,003,725 tons; in the 12 years to 1902 there was an average annual increase, one year over the preceding of 9.775 per cent. Taken an even 10 per cent increase each year over the preceding, it develops that in the short space of 14 years, following 1902, there would be shipped a total of only 30,000,000 tons less than an even 1,000,000. Assuming that the 1902 basis were maintained and not increased, it would take 36 years to total 1,000,000."

It is plain from this that California will soon be obliged to look for iron ore within its own borders.

It need not look long or far. There is any amount—moun-

tains in fact of iron ore in California, and it is easily accessible to railroads. The ore is of excellent quality.

All that is needed is capital to build big smelters, to build iron works in which the raw material can be manufactured as needed.

There is plenty of capital in California to develop an immense iron industry. The banks are full of idle money. Now that the discovery of oil has made fuel plentiful and cheap, every objection to the successful carrying out of great iron enterprise has been removed.

Attempts have been and are being made to inaugurate such an enterprise, but thus far nothing has materialized.

It is to be hoped that with the opportunity presented in this State for the establishment of a great and growing industry, no fear of failure or groundless timidity may deter enterprising capital from engaging in a business that will not only reap rich financial returns to the investors, but will add much to the wealth and prosperity of the Golden State.

## Putting on More Oil.

Supervisor Sampson received another carload of oil Thursday and yesterday began putting the finishing touches on the streets already partly oiled. This means that he will put an additional coat on the center of the roadway and cover the sides of the street with oil, which was not done on the occasion of the first application. When this has been done the entire roadbed will have been oiled and as soon as the oil has been sufficiently absorbed by the soil, Mr. Sampson intends to run the big county roller over the streets, thus completely packing any that may run in loose soil and give a smooth and even surface to the driveways. We are satisfied that the use of oil on the streets and roadways marks a new era in road building and that the proper use of oil on county roads will greatly simplify the transportation problem for our farmers. With the roads in the country districts properly graded and then carefully prepared and oiled, our farmers will be able to haul as much wheat and other farm products to shipping points with four horses as they do now with eight and ten animals. This in itself means much in an economical way. Good roads are as important to our farmers as railways, and in no progressive country of the world is this matter so utterly neglected as in America—especially in the western portion of the continent. Good roads attract and retain a desirable population. The great obstacle, however, in the way of this improvement is the high freight on oil—the former costing many times more than the latter, but a solution of this problem will be found.—Corning New Era.



**STREET OILING RULES.**

The Specifications Adopted by Bakersfield for Oiling Streets.

The city of Bakersfield, California, has adopted the following specifications for the building of oiled streets, as prepared by city engineer Evans:

First—The street after being graded in accordance with speci-

over 2 per cent of water and heated to a temperature of not less than 200 degrees Fahrenheit when being applied.

Fourth—The oil shall be applied as follows: The streets shall be plowed to a depth of six inches then be coated with oil at the rate of one gallon of oil per square yard of area, then the oil shall be plowed under to a depth of four

with the surface material of the street. Then the street shall be rolled till sufficiently compacted to withstand ordinary traffic without rutting.

Fifth—When accepted, the street shall be on the established grade, having a true and even surface and crown.

Sixth—The contractor shall furnish all material and appliances

scribed under the superintendence and to the satisfaction of the street superintendent and city engineer.

**Oil on Hanford Streets.**

The large carload of oil, which the city ordered a few days ago, arrived yesterday afternoon and Street Superintendent Leggett had his men commence this morning to sprinkle it on the streets.



Wells and Sump Hole of the Occidental Oil Company, at Sunset.

cations for grading streets in the city of Bakersfield, will be ready to receive the oil.

Second—The quantity of crude mineral oil to be applied shall be at the rate of one and one-half gallons of oil per square yard of surface area of street.

Third—The oil shall be 12 to 14 Baume gravity, and containing not

inches and then harrowed with a disc harrow, or rolled with a Fitzgerald spike roller; then a second coating of oil shall be applied at the rate of one-half gallon of oil per square yard of surface area of street. The street shall then be harrowed or rolled with the Fitzgerald spike roller till the oil becomes thoroughly incorporated

necessary for the prosecution of the work to completion in a thorough and workmanship manner.

Seventh—Bids shall state price per barrel (42 gallons) of oil applied on street according to the method prescribed in these specifications.

Eighth—The work shall be pre-

Supervisor H. D. Barton has also a carload of the material ordered, having sent in his order five weeks ago, but as yet it has not arrived. The oil he expects, he will have put on the road extending for one mile along the eastern limits of the city, commencing at the north end of the line.—Hanford Sentinel.

<p><b>O I L</b></p> <p><b>WELL</b></p> <p><b>SUPPLIES</b></p> <p><b>EXCLUSIVELY</b></p>	<p><b>All Fully Equipped</b></p> <p><b>THE LARGEST STOCK</b></p> <p>ON THE</p> <p><b>PACIFIC COAST</b></p> <p><b>R. H. HERRON CO.</b></p>	<p><b>We Have</b></p> <div style="border: 1px solid black; padding: 10px; display: inline-block; font-size: 2em; margin: 10px;">5</div> <p><b>STORES</b></p>
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## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### COALINGA.

Oil City Petroleum company has erected another derrick and will begin rigging up shortly.

The Union Oil company of California, has resumed operations on section 13, and are down about 550 feet. The company expects to rush this well to completion.

The work of rigging up on the Roberts Oil company's lease will be started in a day or two by Messrs. Brown and Garrigan, who have operated with great success on the Esperanza lease.

McClurg & Claypool's well No. 2 has been packed and it is now flowing. The flowing production is greater than when the well was on the pump, which seems very encouraging for section 31 operators.

The Coalinga Oil company is now delivering its oil to the Pacific Coast Oil company. The tanks of the company are not connected with the pipe-line. The oil is shipped as formerly by cars from Ora Station.

Work on the Octave Oil company's property is being rushed, and the crew will be at work rigging up this week. The hole will be started with sixteen-inch tools, which will allow the operators to go deep if necessary.

The outlook on the Adams property, where R. C. Baker is putting down a well, is very bright. Mr. Baker has made about 500 feet of hole and has the water shut off with 9½-inch casing. He will continue the hole from this on with 7½-inch casing, and will probably carry this string through the sand.

An assessment of 2 cents per share on the issued stock of the Fresno-San Francisco Oil company was levied by a vote of the board of directors at the meeting held in Fresno on the 6th inst. The company has already three good producing wells and will begin drilling another in the immediate future.

Blue Diamond people are down 470 feet, with 9½-inch casing and are much pleased with their present prospects. They are in the oily formation found in this section of the field, and a mixture of water and sand is being brought up in the baler. They expect to strike the first sand in from 80 to 100 feet more.

The 28 Oil company are now pumping their No. 8 well, which was recently finished. No. 9 is down 1050 feet with 11½ casing in the hole. No. 10 derrick is completed and the grade being made for No. 11. Two 500-barrel galvanized iron tanks are being constructed on the company's property near the No. 9 well.

New San Francisco Crude Oil company has finished up its No. 2 well this week on section 6, at a depth of nearly 1,300 feet. The well has not been pumped as yet so the capacity cannot be determined, but if the other wells on this section demonstrate anything, it would mean a well of about 200 barrels production.

Penn-Coalinga No. 2 has been finished up and will be put on the pump at once. This well is located opposite the large Esperanza wells within a few hundred feet, and when it was first drilled to the sand gushed out oil estimated at the rate of 600 to 800 barrels per day. The well is likely to begin flowing again at most any time.

Well No. 3, of the Esperanza Oil and Gas company was finished on the 8th of this month, and proved, as was ex-

pected by the management, to be a flowing well like the other two. At this writing no fair estimate of the production of this well can be given as it was not set to flowing until later. It bids certain to equal the other two which are daily producing 600 barrels.

The California Oil Fields, Ltd., are at present carrying on more extensive operations than ever before. No. 13, on Sec. 27, is nearly finished. No. 14 on the same section is down 780 feet. The derrick for No. 15 is completed, and one for No. 16 is now under way. The pipe line connecting the Ltd. with the P. C. O. company's large tanks is completed and a pumping station being built.

The Wabash Oil company that has been drilling for some time on section 24, has struck the main oil sand at a little over 1,000 feet. Contrary from the other producing wells in the southwest corner of the field, the oil is of a much lighter gravity approaching nearly 17. Although the well is not completely finished as yet the indications prove that a large producer may result. It also disproves the theory that all the oil at that particular end of the field is of heavy gravity because two wells that were drilled in shallow territory proved to produce such.

The M. K. and T. Oil company are down something over 2200 feet and have their first fishing job. The well is undergoing a temporary shutdown, awaiting the arrival of a steel nipple from Bakersfield, with which they will pick up and remove the joint of six-inch drive pipe now in the hole. This joint of casing was lost by the string of pipe being dropped, which caused the lower joint to collapse, and when the remainder of the string was pulled, this joint was left in the hole. The pipe was dropped by the parting of a shackle on the lower casing block and was the fault of defective construction. When the string of casing was pulled it was found that the lower 200 feet was covered with oil.

Among the wells that have either penetrated the oil sand or have been finished since the first of the month are one each for California Oil Fields Limited, Section 28 Oil Company, Oil City Petroleum, Esperanza, Penn-Coalinga, Section 7, Maine State, New San Francisco Crude, R. C. Baker, and the Wabash. The companies at present drilling are the Blue Diamond, Caledonian, Union Oil company, Section Seven, Philadelphia-San Francisco, McClurg & Claypool, Call Oil company, Twenty-eight Oil company, M. K. & T. Oil company, California Oil Fields Limited, Roberts Oil company, Pleasant Valley Farming company, Independence Oil company, Hanford Oil company and Chicago Consolidated company. Since the advent of the Pacific Coast Oil company's pipe-line into this field the activities of the field have considerably increased and large operations are planned for by the companies not above mentioned and several new companies that have recently been organized. It is understood that new companies are soon to begin work on sections 25, 7 and 34, while two other new companies are in progress of organization.

#### FRESNO.

The recording of four oil locations last week by J. B. Daly indicates that there is still some prospecting going on in the oil regions in the southwest part of the county. All the locations made

are in the names of Du Ray Smith and seven others and are named respectively, Oakland No. 1, No. 2, No. 3, and No. 4. They are all in section 6 of township 21, range 14 east, and are on the other side of the divide to the east of Hot Springs canyon, about three miles to the south and east of Fresno Hot Springs. The claims consist of the S½ of the NE¼ and lots 15 and 16, of the NW¼, lots 13 and 14 of the SW¼, the SE¼ and lots 11 and 12 in the SW¼.

#### FULLERTON.

Olinda Oil company has filed notice of the creation of \$80,000 bonded indebtedness.

M. M. Good, who successfully drilled the deep producing well on the Menges lease in Brea canyon, has just been awarded a contract to drill a second well for the company to a guaranteed depth of 1,500 feet. He will move his family back to Fullerton from Santa Paula.

#### KERN

The R. D. Robinson company will drill fifteen oil and three water wells on its Clairmont property immediately. The Potomac and the Robinson companies are both Los Angeles corporations with their headquarters in that city.

Dr. A. H. Liscom, superintendent of the Vesta Oil company, has organized a company to operate on ten acres on 30, 28-28, just north of the Vesta property. Dr. Liscom is from Los Angeles and it is understood that capitalists of that city are interested in the enterprise. The company has not yet been named.

The Potomac Oil company at Kern River is now completing its new boiler house and when this is done will handle all its pumping from one central plant. There are now nine wells on the property and eleven more will be drilled at once. The company has also twenty-two wells in the Summerland district, where it is operating. A 10,000-barrel reservoir will also be constructed.

Berry & Keller, who have been drilling on a thirty-acre tract between the Kern River Oil company and the San Francisco-McKittrick company at McKittrick, have completed their first well. It is about 700 feet in depth and over 100 in the sand. Mr. Keller estimates that it will produce about 300 barrels a day. Several other wells will be sunk on this tract in the near future. The land is in the midst of the best properties at McKittrick and the owners were the promoters of the Eldorado company.

The McKittrick company, one of the first companies in the field to be organized by local capital, and which has passed through all periods of prosperity and adversity during its career successfully, now finds itself in a better position than ever before. It has many wells in operation at McKittrick, has good contracts for the sale of its oil and is now reported to be in receipt of an excellent income. Some of its wells are known to be among the best in the field and the company is expected to be soon on a dividend-paying basis.

The Bakersfield Californian says that the outlook is for a great pick-up in business in the new districts on the west side in the fall when it is expected that drilling operations will begin on several properties hitherto undeveloped and unknown and work will be resumed on some which have been suspended. Locations have been made all over the Cuyama, Carisa and Blkhorn districts which will probably be exploited in the near future. The great obstacle in these fields is of course the lack of transportation facilities which will naturally hinder the growth of the district as a great producer for the market. It is the general opinion that if once paying quantities of oil are struck it will be

only a question of a short time when this problem will be solved and some road will build into the territory.

The Californian says visitors to the oil fields say that the outlook is for a quiet month compared with those just passed. A number of companies have suspended operations temporarily but will resume in the fall. Many of the managers and superintendents have gone on vacations during the summer and many are allowing all the work they can to go until fall. The comparative dullness in sight for the present month does not mean that the activity in the business is to cease permanently or that the demand for oil is falling off. On the contrary it is increasing rapidly. The only cessation of activity is due to the same causes which make all business dull during the summer months everywhere. Many properties are still being exploited and activity will be resumed within sixty days. The Knob Hill is one of the companies that is postponing all the work it can until fall. It has now twenty-four wells finished and ten to be drilled, but it is understood that the intention is to postpone operations on these until fall.

#### MENDOCINO.

The Ukiah "Press" says that boring for oil in that county has at least developed the fact that there is a good quality and fairly abundant supply of artesian water underlying the Ukiah valley. The conditions also seem very favorable for finding oil in paying quantities.

The oil well at Point Arena has petered out or rather the contract to bore a well 1,200 feet has been completed and no oil has been found so far as can be learned, says the Ukiah Press. G. B. Robbins, who has been for months superintending the boring left yesterday on the steamer Point Arena with his family for San Francisco. The future plans of the company have not been made public but it is believed the field will not be entirely abandoned.

#### SAN BENITO.

A number of Eastern gentlemen inspected their property in Bitterwater district of San Benito county, the past week. The party consisted of H. L. Stewart of New York, Scott German, Dr. William F. Keirn and Dr. William F. Mennsen of Newark, New Jersey. They own 10,000 acres in the Bitterwater district and have a lease on 14,000 acres additional. They have one well near Bitterwater down about 1,100 feet and with excellent oil indications. It is believed that oil will be struck very shortly in this well. The gentlemen owning the land represent considerable capital, and if they develop a district will construct a pipe-line to the railroad at Kings City.

#### SANTA MARIA.

The Union Oil company, which recently struck a fine well back of Lompoc is planning to put in a pipe-line from the summit of the Santa Rita hills to the beach, a distance of fifteen miles.

The Southern Pacific oil well near Casmalia is being sunk rapidly with the engine going night and day. Manager Young expects to encounter liquid asphaltum but he is confident that with his special machinery he can pierce that obstruction and get a flow of oil. He knows the asphaltum is there and is prepared to go through it or bust a suspender.

#### SARGENTS.

A new string of casing is now being placed in the last well, No. 10, of the Watsonville Oil company.

At the Alberta well, located near the Sargent home, considerable bad luck has been experienced in the breaking of the cable and in sundry other difficulties.







## NEW KIND OF ASPHALT.

### A Process for Making Asphalt Invented by Henry F. Williams.

By Mixing Liquid Asphalt With Carbonate of Lime,  
Obtained as Waste from Sugar Refineries, a  
Remarkably Fine Asphalt is Produced.

Henry F. Williams, residing in San Francisco, has discovered a new and useful composition for paving, roofing, etc., of which the following is a description in his own words:

"My discovery in its relation to compositions for these purposes is that in the working of an unallied

ses of of disintegration, as well as the mechanical wear to which a pavement is subjected. To obtain the best results, the limestone must be finely pulverized before mixing, and this entails the expense of mechanical crushing machines and of the labor for operating them. To calcine the stone would do away with the crushing process and would reduce such

and chemically exactly fitted for mixing with asphaltum and contains all the qualities which I have heretofore pointed out as so desirable for that purpose. It is, in fact, as I shall hereinafter explain, better adapted for tempering asphaltum than mechanically-pulverized limestone, since the processes which have produced it give it certain additional characteristics and qualities which are lacking in the pulverized stone. This product is, in fact, calcined limestone recharged with carbonic acid, which, as I have pointed out, would be a desirable material to use with asphaltum if it could be produced cheaply enough, and in this case it is evident that the cost of production can be ignored, since it is one of the operating expenses of beet-sugar refining and only an incident of that manufacturing process.

"In refining and purifying crude beet-root syrup and removing the dark color the agent employed is

with sand, gravel, or other paving and roofing materials in proper proportions. In this way I have utilized and rendered of commercial value a waste product which up to this time has been a worthless accumulation in the beet-sugar works, and by utilizing it I have enabled the best quality of paving and roofing composition to be made at a cost which it has been hitherto impossible to reach.

"I have throughout this specification admitted and impliedly disclaimed the broad use of pulverized limestone as an ingredient for tempering asphaltum. My discovery only extends to the adaptability of calcined limestone, which has taken up carbonic acid to the particular waste product embodying that idea and to a logical demonstration of the reasons for such adaptability. So far as I am aware this has not heretofore been recognized or pointed out.

"I am aware that it has been



Constructing a 35,000 Barrel Tank in the Kern River Field.

art a waste product is produced in large quantities, which for chemical and mechanical reasons hereinafter explained is not only of great value for tempering and giving the proper consistency to pure asphaltum, but accomplishes that result in a way which is relatively so inexpensive that the best paving and roofing composition can be produced at a greatly reduced cost as compared with processes heretofore necessarily used.

"It is well known in the art of making paving and roofing compounds that the mixing of pure asphaltum with pulverized limestone or carbonate of lime in proper proportions results in an exceedingly tough and yet flexible compound for these purposes. The carboric acid of the lime has a strong affinity for the hydrocarbon of the asphaltum, producing an intimate chemical mixture which resists the ordinary proces-

stone to the required soft condition for a mechanical union with the asphaltum; but the calcining having driven off the carbonic acid of the stone the intimate chemical union is no longer possible and the stone has lost the quality which gave it its chief value. If it were possible to recharge the calcined limestone with carbonic acid and to do it cheaply, all the conditions favorable to its use in paving and roofing compositions would be present. The expense of such an additional process, however, makes its use commercially impracticable.

"I have discovered that in the practice of the unallied art of refining crude beet-root syrup a waste product is produced in great quantities the accumulation of which is only a source of annoyance and trouble to the sugar-refiners, and yet this waste product, owing to the processes and treatments which have resulted in its formation, is mechanically

milk of lime produced by calcining limestone and slaking the lime. This is mixed with the syrup and is afterward precipitated by carbonic acid, which is absorbed or taken up by the lime. A thick sludge or paste is thus formed which is subjected to heavy pressure, leaving as a residuum a carbonate in the form of solid lime-cake or lime-sludge. This material possesses all the mechanical and chemical advantages of crushed and pulverized limestone for mixing with asphaltum, and if, in addition, it has taken from the syrup some small quantity of vegetable matter such matter is of advantage in mechanically binding together and strengthening the union of lime and asphaltum, I mix this product with melted asphaltum in proper proportions to produce a composition for the intended purpose. This composition of asphaltum and carbonate of lime prepared as stated may be mixed

proposed to use refuse lime produced by the old wet process of making illuminating gas in combination with coal-tar and with clay all in a consistency suitable for molding. Such a combination is not my invention, which is restricted to a combination of asphaltum with refuse lime produced in the manufacture of beet-sugar, as fully hereinbefore described."

This process has been patented, and since then the discovery has been put to practical tests, and found to be in every way satisfactory.

By utilizing what was the waste of the sugar refinery and combining the carbonate of lime thus obtained with asphalt the result is something which cannot be surpassed by any known form of asphalt for certain purposes.

Mr. Williams is now interesting capital in his patented process which is no doubt exceedingly valuable.



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**SAN FRANCISCO, CAL.**



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, August 12th:

**APOLLO.**  
370 at 45..... \$ 135 00  
**ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.**  
1,000 at 25..... 250 00

**AZTEC.**  
500 at 85..... 425 00

**CENTRAL POINT CON.**  
1,300 at 80..... 1,040 00

**CHICAGO CRUDE.**  
500 at 19..... 95 00

**FOUR.**  
300 at 68..... 204 00  
900 at 69..... 621 00

**HANFORD.**  
22 at 130 00..... 2,860 00

**HOME OIL.**  
200 at 2 90..... 580 00  
100 at 2 85 (S 90)..... 285 00  
300 at 2 85 (C)..... 855 00  
200 at 2 85..... 570 00  
300 at 2 80..... 840 00  
200 at 2 80 (B 30)..... 560 00  
1,150 at 2 75..... 3,162 50  
300 at 2 70 (S 90)..... 810 00  
100 at 2 70 (C)..... 270 00  
300 at 2 70..... 810 00  
650 at 2 65..... 1,722 50  
100 at 2 65 (B 90)..... 265 00  
500 at 2 60..... 1,300 00  
200 at 2 55..... 510 00  
200 at 5 50..... 500 00  
600 at 2 40..... 1,440 00  
400 at 2 35..... 940 00

**INDEPENDENCE.**  
17,050 at 17..... 2,898 50  
500 at 18..... 90 00

**LION.**  
2,000 at 05..... 100 00

**MONARCH.**  
275 at 55..... 151 25

**MONTE CRISTO.**  
105 at 87 1/2..... 91 87  
50 at 90..... 45 00

**OCCIDENTAL OIL.**  
650 at 18..... 117 00  
3,000 at 19..... 570 00

**OIL CITY PETROLEUM.**  
3,000 at 31..... 930 00

**PITTSBURG OIL.**  
300 at 40..... 120 00

**SENATOR.**  
100 at 72..... 72 00

**SAN JOAQUIN.**  
50 at 5 75..... 287 50

**SOVEREIGN.**  
500 at 38..... 190 00  
550 at 40..... 220 00

**TWENTY-EIGHT.**  
100 at 4 10..... 410 00

38,852 Shares Amount \$37,343.12

**HANA PLANTATION.**  
150 at 15 00..... 2,250 00  
50 at 20 00..... 1,000 00

200 Shares Amount, \$3,250.00

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	
Apollo.....	.46	
Asso. Oil Co Stk. Tr.		
Certificates.....	.25	
Aztec.....		.10
Bay City.....		.10
Bear Flag.....		
California Standard.....		
Caribou.....		
Central Point Con.....	.80	.85
Chicago Crude.....		
Clairemont.....		
Esperanza.....	1.00	
Fanna.....		
Four.....	.68	.69
Fulton.....	2.85	
Giant.....		
Hanford.....	131.00	135.00
Home.....	2.30	2.35
Homestake.....		
Imperial.....		
Independence.....	.17	.18

Junction.....	6.00
Kern.....	
Kern River.....	
Lion.....	.04
Monarch of Arizona.....	.53
Maricopa.....	
McKittrick.....	
Monte Cristo.....	.85
Nevada.....	.90
Occidental of West Va.....	.18
Oil City Petroleum.....	.29
Peerless.....	13.50
Petroleum Center.....	
Pittsburg.....	.35
Piedmont.....	
Reed Crude.....	.40
S. F. & McKittrick.....	.41
San Joaquin O. & D.....	5.50
Senator.....	.71
Shamrock.....	.75
Sovereign.....	.37
Sterling.....	.40
Superior.....	
Thirty-three.....	
Toltec.....	.18
Twenty-eight.....	.21
Union.....	
United Petroleum.....	
West Shore.....	
Western Petroleum.....	
Wolverine.....	.60

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Trains leave Union Ferry Depot, San Francisco, as follows:

**7:30 A. M.—BAKERSFIELD LOCAL;** Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.

**9:30 A. M.—THE CALIFORNIA LIMITED;** Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**9:30 A. M.—VALLEY LIMITED;** Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**4:00 P. M.—STOCKTON LOCAL;** Due Stockton 7:50 p. m., Corresponding train arrives 11:10 a. m.

**8:00 P. M.—OVERLAND EXPRESS;** Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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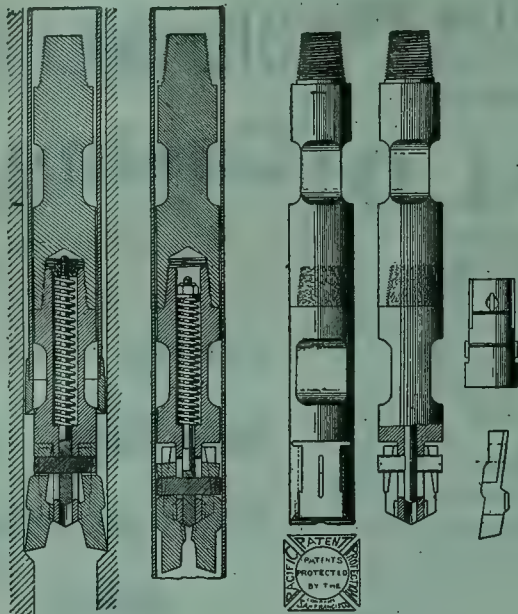
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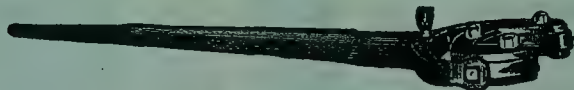
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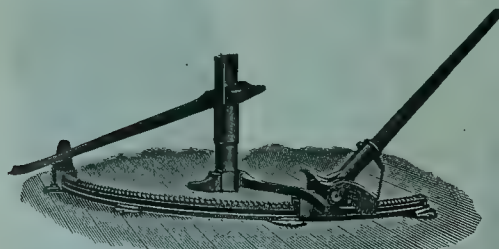


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# PACIFIC OIL REPORTER

VOL. 4. No. 42.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 22, 1903.

PRICE, TEN CENTS.

## THE HOME OIL IN TROUBLE.

### Rapid Decline in Stock Market Brings Consternation to Stockholders.

#### Indignant Meeting Is Held in Stock Exchange and Committee Appointed to Investigate Affairs of Company.—What Officers Have to Say.

Those of our readers who may have been following the quotations of oil stocks on the California Stock and Oil Exchange for several weeks past, cannot have failed to notice the rapidly increasing quotations in the stock of the Home Oil company. The Home Oil is probably one of the best known companies in the State.

a start in the world as a financier. The record which the Home has made as a dividend payer is a remarkable one, paying over \$392,000 on a hundred thousand dollar capitalization, since its organization in 1896. And the most remarkable thing of it all is that it has done this with only eight wells, and much of the time not

nant stockholders of the Home Oil company representing an aggregate of 41,500 shares of the total of 100,000, held an exciting meeting at the Mills building yesterday afternoon to take steps to investigate the affairs of the corporation. The disastrous slump in the stock of the famous dividend payer during the week, ranging from \$3 to \$1 60, which was the lowest price, had spread consternation and when inquiry was set on foot suspicion was aroused that the management was not in proper hands and that it had not acted with conscientious regard for the interests it was serving.

"Why the stocks were slaughtered no one seems able to explain. The local office in the Mills building would yield no information as to the affairs of the corporation.

holdings in anticipation of the drop in prices.

"John Hinkle presided at yesterday's informal gathering. The law requires that in such corporations as this," he said, "the management shall make a report at least once a month as to the status of the business, but the officers of the Home company have been strikingly negligent. We really have no idea as to the standing of our company. President Ellis is drawing a salary of \$200 a month, but at the present time, I understand, he is over in Wyoming looking after some affairs of his own."

"Sig. Wormser of Fresno moved that a committee of three be appointed to investigate the affairs of the corporation. 'If any one has been guilty of wrong-doing,'



Wells of the Home Oil Company at "Oil City" Shown in the Background.

It was one of the first companies in the State to attract attention among speculators, and when the famous "Blue Goose" well of this company commenced to spout oil at the rate of 1,000 barrels a day it attracted about as much attention as its famous prototype, the "Lucas Gusher" in the Beaumont field, a few years later. It is said that the stock of this company has sold for the highest price ever known in the history of oil companies. At one time, when the Hearst estate was bidding for the control of the company, the stock reached the \$5,000 mark, a fabulous price to pay for a share of oil stock. It was at this time that the present president of the company, "Dick" Ellis, unloaded a few shares that he had gotten possession of for a song, and thus gained

half of them pumping oil.

On July 17th last the stock of the Home company sold on the stock exchange for \$3.10. It declined slightly, but hovered about the three dollar mark, until last week it began suddenly to slump until Friday, when it was freely offered for \$1.65 and perhaps even less. It was this sudden drop that brought the stockholders and stock speculators to a full realization that there was something radically wrong somewhere, and the result was a meeting of stockholders was called to meet at the rooms of the Stock Exchange on Saturday last. The result of this meeting can best be told by reproducing the report as published in the dailies of Sunday morning, which was as follows:

"About thirty-five alarmed, indig-

Secretary Staley knew nothing about it. All correspondence received from the wells came addressed to President R. V. Ellis, and was pocketed by him, so that the secretary never got a glimpse of it.

"Then it was learned that President Ellis had departed from San Francisco, had gone to Wyoming to engage in some oil enterprise there, it was said. It was noised abroad that he had sold all his Home Company stock, and that it was he who had thrown the great amount of shares on the market that caused the break. He had owned something like 26,000 shares, and rumor had it that he did not have 500 shares remaining when he quietly left the city. It was also alleged that the other four directors had let go their

continued Mr. Wormser, 'he ought to be brought to time, and it should be done immediately. I understand that at the present time none of the officers hold any stock. They should be asked to retire. If they refuse, they should be ousted; this can be done by a two-thirds vote.'

"W. W. Phillips, also of Fresno, owner of 800 shares and representative for W. J. Dickey of the same place, who holds 1,000 shares understood that one well was bored two years ago, oil was struck and then it was capped. When it was reopened it was full of water, the inevitable result of allowing it to lie idle. Mr. Phillips regarded this as gross mismanagement of a well.

"Broker Wilfred Page was the only one who raised his voice in



defense of the management. He has been acting as agent of Ellis and some of the directors.

"I have talked with Henry Rosenfeld and A. D. King of the directorate," he explained, "and I know that they are willing to testify that Mr. Ellis has managed this property as ably as it could be done, and has acted for the interests of the stockholders."

"Admitting that there had been no mismanagement, President Hinkle said he knew it for a fact that President Ellis had sold all his stock, amounting to about 26,000 shares. Director King had also sold his, between 5,000 and 6000 shares.

"Secretary Stidger read a statement from a driller employed at the wells, saying that the output had dropped from 700 to 300 barrels a day, and that the operations had been devoted to pumping water more than oil during the last two or three months.

"Robert Topfritz suggested that the committee be given authority to spend \$250 in making the investigation. 'I want to see them shown up,' he said, 'and if they are responsible for keeping us in the dark concerning our own business affairs, we will make an example of them.'

"After some further discussion W. W. Phillips, Sig. Wormser and John Hinkle were delegated to look into the affairs of the company.

"Henry Rosenfeld stated last evening that, so far as he was concerned, there had been nothing improper in the management of the corporation. If there was a question he was glad that an investigation was set on foot.

"B. B. Ellis, superintendent of the works in the Coalinga district, and brother of President Ellis, said last evening: 'There are six wells in operation at the present time, and it is simply a proposition of old wells falling off in their output, as happens in any oil district in the world. The production began to drop about six months ago.'

"He admitted that he had made no report of this fact till last Friday. His brother, of course, had full knowledge of it.

"Since 1899 the Home company has paid in dividends \$392,500 and has been one of the best money-making concerns in the oil fields of California. It owns a lease to an eighty-acre tract from the Homestake company, and was for a time involved in litigation with the Hearst interests. The price for the stock ranged yesterday from \$1.75 to \$1.90.

"The directors of the company are Henry Rosenfeld, A. D. King of Hanford, R. V. Ellis, Louis Rosenfeld and J. C. Augsburg. It is said Ellis bought all his stock a few years ago at 13 cents."

A representative of the PACIFIC OIL REPORTER called at the

office of the company in the Mills building on Monday morning and had a talk with directors Rosenfeld, King and Augsburg, who were holding a directors' meeting. President Ellis was reported absent still in Wyoming, but had been wired to come home and help stem the tide which seemed to be setting in against the officers of the company. The directors seemed to think they had not been neglectful of any duty they owed to the stockholders and showed a disposition to be frank and outspoken in regard to the affairs of the company. In fact they expressed surprise at the turn things had taken. When it began to be noised about the board room that there was something "rotten in Denmark" they had wired B. B. Ellis, superintendent and brother of president Ellis, to come to San Francisco at once, which he did and at the request of the board had submitted a report of the condition of the wells, of which the following is a copy:

"SAN FRANCISCO, Aug. 14, 1903.

"To the Board of Directors of the Home Oil Company, San Francisco, Cal.

"GENTLEMEN: At request of your board I have just come to San Francisco and having been asked to give a statement of the condition of the wells and prospects I beg to say:

"The wells are at present producing three hundred (300) barrels to three hundred and twenty-five (325) barrels of oil daily; this is exclusive of water. They are making no more water than they did three months ago.

"I advise another well at once, as I am confident we will get a good producer. There is room for several more good wells without crowding.

B. B. ELLIS,  
Superintendent."

When asked how much water the wells were making, director King said he thought about 75 barrels daily. The diminution in the flow of oil, he said, had been gradual for several years and he did not think it was any more during the past few months than for a same period hitherto. In fact, he knew of no new developments at the wells since he became a director that need cause any alarm. When questioned as to the plans of the company for the future, the directors replied that while it had not been definitely passed upon, it was the purpose to undertake new development work at an early date. Until the recent contract with the Standard Oil company was made there was no demand for more oil than the company was producing; in fact the company had had hard work to secure enough cars from the railroad company to handle its output. Since the contract with the Standard was entered into the company had been figuring on putting down additional wells. The directors said they knew of no reason why new wells could not be sunk to bring

the company's output up to any desired amount. The sinking of new wells would mean the passing of dividends for the time being, and as soon as the August dividend, which was now being distributed among stockholders, was settled up the new development work will be undertaken.

When asked about the report that the directors were disposing of their holdings, director Rosenfeld said he was still a large holder of the stock and presumed that he had bought and sold the stock of the company in much the same way as many other stockholders had done who were not directors. Director King said the newspaper reports did him an injustice. On the first of last January he held only 100 shares of the stock. President Ellis had transferred 5000 shares of his stock to him without his (King's) knowledge and it was only a few days ago that Mr. King had been appraised of this fact, when he transferred them back again. Mr. Ellis not being in town, and the other directors having absolved themselves in a reasonably satisfactory manner, the question seems to be "up to" Mr. Ellis to explain. No one in the office seemed to be willing to assume any authority to speak for him. In fact Ellis is pretty nearly the whole thing around the Home office. The directors are all inexperienced in oil develop-

ment work and could not tell a Forge jack from a temper screw if their lives depended on it. The superintendent is a brother of the president and if he has ever made a report of the condition of the wells or the output, except the one printed above, the stockholders say there is no record of it.

One of the members of the committee appointed to investigate the affairs of the company was interviewed and he disclaimed any intention on the part of the committee to charge dishonesty in the financial management of the company. What he charged against the management was the concealment of information that ought to be given out to every stockholder of the company. If the wells were diminishing in production month by month the stockholders ought to know it; if they were filling up with water the stockholders ought to know that too. He did charge extravagance in the management of the company. He knew of no good reason why the company should pay its president \$200 a month when most of his time was spent in Wyoming looking after private interests. This committeeman intimated that the committee proposed to probe to the bottom of things even if they had to invoke the aid of the courts to do so. He represented about 7,000 shares of stock and he said he did not pro-

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pose to endure any more high-handed work in the management of the company. He frankly expressed his opinion of the president of the company in language that would not look well in print.

The PACIFIC OIL REPORTER has no financial interest in the affairs of the Home Oil company. We hold no prejudice of which we are conscious against any officer or director of the company. If any difference we probably have as little sympathy for the stockholders of this company as any other company in the field. It has paid its stockholders magnificent dividends and the stock has always been obtainable by the public at a very nominal price. In fact we know of no industrial stock that pays from 60 to 90 per cent dividends on its face value that can be obtained for the price of Home Oil stock. With only \$100,000 capitalization it has paid nearly \$400,000 in dividends in about seven years with only eight wells producing a part of the time. What do the stockholders of the company expect anyway? No other oil company in existence, not excepting the Standard, can duplicate this. If the directors are criminally culpable it is probably in not sinking forty or fifty wells and paying off the national debt. If the president of the company was not dealing honestly and fairly with the stockholders why did not Messrs. Hinkle, Phillips and Wormser, who are all fairly shrewd business men, register a kick a long while ago and have the thing done right? It looks very much to us like a case where the stockholders were very much pleased so long as the dividends held out and very much displeased when there was a prospect of their being discontinued. However, we hope the committee will probe the matter to the bottom and show up any rascality if any is found to exist. We do not believe in the "one man" power in the management of oil companies. The public is entitled to protection from stock manipulators, and if President Ellis is found to have manipulated Home oil stock to his personal advantage, as he is openly charged with doing, he should be made an example of, as we believe he will be, if these charges are proven true. And if, on the other hand,

Mr. Ellis is falsely accused the columns of the PACIFIC OIL REPORTER will be open to him to set himself right with the public.

There is nothing in this flurry to shake the faith of any one in the value of good oil stocks, and we still believe Home stock to be good property to own. It is simply a question of slack management on the part of the directors, a bit of domineering on the part of the president and overconfidence on the part of the stockholders. All of these can and will be remedied. Meanwhile the stockholders of the Home will probably have to forego dividends just as thousands

## EXTENDING THE FIELD.

### Strike at the Wabash adds Several Sections to Coalinga Field

On Friday of last week the Wabash Oil company struck oil at a depth of 1050 feet. The Wabash is located on the north half of the northeast quarter of section 24-20-14.

This well proves a large area of land in its near vicinity; the territory between it and the St. Paul, Penn-Coalinga and Esperanza leases is now very valuable, in fact the price of land in section 24 has jumped to \$1,000 an acre.

When the operators struck the sand the well was partly full of

account of lack of funds and sold their lease to the Wabash.

Just how large the well is cannot be stated at this time, but it is safe to say that it is a good one. It proves the west side to be the most extensive of any section of the Coalinga field thus far developed and opens up a large area of land for operations that would otherwise have lain dormant for some time—Coalinga News.

## Oil Dividends.

The following companies paid dividends during the month of July: Aztec, 2 cents per share; Four, 1 cent; Home, 5 cents; Monte Cristo, 1 cent; San Joaquin



Well of Wabash Oil Company, Where Big Strike has Just Been Made, Shown in Background.

of other holders of good oil stocks are doing without a murmur. If the Home directors had followed in the lead of a dozen other good companies in the Coalinga field during the past year and pushed development work, there would not be any question to-day in the minds of its stockholders about the permanent value of the stock. The lesson is one for other companies to take note of.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

water, they continued drilling for 30 feet and then filled the hole full of water. The oil and gas forced their way up through the thousand feet of water and a mixture of oil, water and sand flowed from the top of the 6-inch casing for some time in large quantities. At present the hole stands full of oil and the baler is being run to clean out the sand and water. The oil is about 18 degrees gravity.

The property of the Wabash was formerly owned by the Grant Oil company. This company started the well that now has oil. The Grant ceased operations on

D. & O., 5 cents; West Shore, 5 cents. The dividends in the aggregate amount to \$112,082. So far this month the following dividends have been announced: Imperial, 20 cents; Peerless, 14 cents; Pittsburg, 2½ cents; Thirty-three, 10 cents.

The oil question in Canada is still attracting more or less attention, and while in a number of cases the development is slow, yet it may be said that the prospects are exceedingly fair and some capital seems willing to take chances.

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## A NEW DRILLING TOOL.

## John T. Davis of San Francisco, Inventor of a Well-Boring Apparatus.

**An Ingenious Well-Boring and Well-Casing Apparatus  
that Will Put the Standard Rig Out of Busi-  
ness if the Claims of Inventor are True.**

John T. Davis, of San Francisco has secured letters patent on a new and ingenious well-boring apparatus that will cause quite a change in the present method of drilling oil wells if the claims of the inventor are verified. For the information of our readers we reproduce entire the description of the invention and the claims of the inventor, as follows:

"My invention relates to well-boring apparatus.

"My object is to provide more effective means for positively removing the drillings, to render it easy to insert new sections of casing and new sections of drill-rod as the work proceeds, to provide an improved form of boring-tool operating by grinding action as distinguished from cutting action, to furnish novel means of communicating power to a drill-rod section which is vertically movable in both directions. These objects are attained by a mechanism in which I have embodied my invention and which is fully hereinafter described and is shown in the accompanying drawings.

Figure 1 is a vertical section. Figure 2 is a cross-section on the line  $x-x$  of Figure 1. Figure 3 is a cross-section on the line  $y-y$  of Figure 1. Figure 4 is a bottom plan of the grinding-bits.

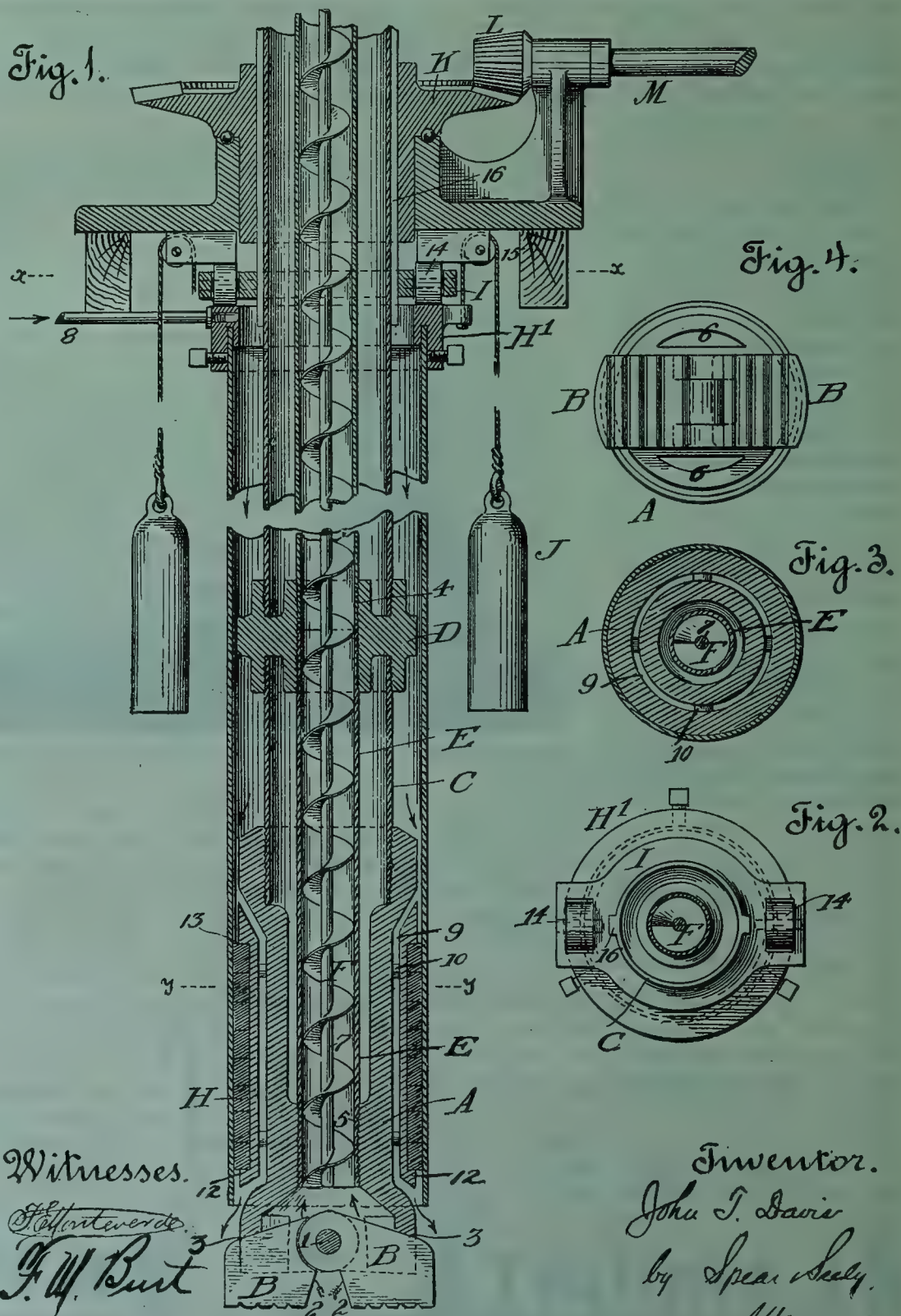
"The apparatus shown in Figure 1 is broken to indicate an indefinite length. In operation such length is increased as the ground is penetrated.

"A represents a hollow drill head, the bore of which is somewhat expanded at the bottom. Within the expanded portion is a pin 1, upon which are pivoted the grinding-bits B B, which project through opposite slots in the drill-head. The bits are free to fall by gravity if unopposed and are oppositely and respectively beveled at 2 2, so that they can approach one another when lifted, and so contract their diameter sufficiently to enable them to be withdrawn from the well. In the opposite direction, however, the upper edges 3 of the guide-slots act as stops and prevent them from expanding. The bits are of substantially rectangular shape in bottom plan, Figure 4, having, however, curved edges which are arcs of the circular bore of the well. The bits are ribbed or corrugated upon their lower surfaces, which are in contact with the ground by their own gravity and the weight of the

terial, and I therefore prefer to construct them of some special natural or artificial substance of exceeding hardness--such, for instance as natural black diamond or the artificial silicide of carbon known as 'carborundum.' Grains of either the natural or artificial substance can be mixed with a suitable cementing composition and can be pressed into the desired shapes, the pressure being equal to or greater than the esti-

The lower section is threaded into the drill-head, and adjacent sections are connected by the hollow couplings D, having interior threads 4 at each end, as often as the progress of the work makes it necessary to lengthen the drill-tube.

"In order to remove the drillings as fast as the work progresses, an inner tube E is connected to the drill-head by a screw-joint 5. Openings 6 in the bottom of the



volved, acting as one tool, and penetrate the earth by a grinding action and not by a cutting action. To make this grinding action effective, they should be made of exceedingly hard and durable ma-

mated possible weight of the drill-rod or other means employed for communicating power, so as to resist any possible crushing strain.

"The drill-rod is a tube C, composed of any number of sections.

drill-head, Fig. 4, allow the drillings to pass upwardly. Within the inner tube is a sectional conveyor-flight F, which may surround a vertical rod 7, or in order to save weight each flight-section



can be secured to the inclosing section of inner tubing without using such a rod. This conveyer delivers all cuttings to the top of the well. To facilitate this delivery, a stream of water entering at the top through a supply pipe 8 is forced down to the bottom between the drill-rod and the well-casing G and at the bottom rises through the openings in the drill-head and into the conveyer, producing a complete circulation of water. The drill-head is formed with an annular water-passage 9, so that the downflow of water is separated from the upflow, and is cast with strengthening lugs or webs 10. The outer well-casing is protected from any grinding action by the drill-head, and the latter is kept centered by a packing H, composed, preferably, of sectional rings, which are held between shoulders 12 13 of the drill-head and the well-casing. This packing also prevents the entrance of artesian water or seepage up between the inner and outer tubes. In order to make the hole sufficiently large to admit of the outside well-casing going down as fast as the hole is sunk, the bits or blocks B B are made somewhat larger than the outside diameter of the well-casing, as shown in Fig. 1.

"On the upper end of the well-casing G is fitted and removably secured a shoe H', having a flat upper surface which forms a track for the rollers 14. These rollers are mounted loosely on pins in the band or collar I, which surrounds and is secured to the drill-tubing. As the drill-tubing descends with the progress of the work the outside casing descends also. This lowering motion is, however, regulated by counterweights J, suspended from the shoe H' by cables passing over pulleys 15, which prevent the casing from dropping upon the drill-bits and preserve the proper relative distance between the bottom of the casing and the said bits.

"Power is applied to the tubular drill-rod, to the drill-bits secured thereto, and to the conveyer inclosed thereby by a bevel-gear K, mounted upon any suitable framing structure and deriving motion from a pinion L and shaft M. One section of tubular drill-rod has exterior feathers 16, which engage with grooves in the bevel-gear loosely enough to permit the free descent of the drill-rod, but still compel its rotation. When this feathered section has gone down sufficiently to make the insertion of another section necessary, it is unscrewed from the drill-head or from one of the couplings D, as the case may be, and then lifted up to a sufficient height to enable another section of outside casing to be inserted and connected. This is continually repeated as the work pro-

ceeds, producing a progressively-increasing length of rotary tubular sections carrying internal conveyer-flights and all firmly connected by the flanged and socketed couplings D. It will be understood from this description that the upper or feathered section only descends for its own length or less, is then raised without requiring the removal of any part of the apparatus, and is reconnected to an inserted section and in turn to as many succeeding inserted sections as the depth of the well requires.

"I do not limit myself to the exact constructions described, and shown in drawings, as I desire to avail myself of such modifications and equivalents as fall properly within the spirit of my invention.

"Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a well-boring apparatus, a well-casing, a hollow boring-tube therein composed of sections, a boring-head carried by said tube, a conveyor-flight and sectional conveyer-tube within the boring-tube, a gear-wheel connected by a feather and groove with the upper section of the boring-tube and means whereby sections may be interposed in the boring-tube and conveyor-tube consisting of the coupling D having a central bore to receive the sections of the conveyor-tube and annular internally-threaded sockets opening upwardly and downwardly to receive the boring-tube sections, substantially as described.

"2. In a well-boring apparatus, the upper section of a well-casing, a shoe mounted thereon, and having a circular track, an upper section of drill-rod tubing, rollers carried thereby and traveling

upon said track, a gear-wheel held against vertical movement with the drill-tube and the well-casing having a feathered and grooved communication with said section of drill-tubing, whereby said upper sections of well-casing and of drill-tubing are permitted to move vertically in both directions, and means for holding the well casing with its shoe up against the said rollers.

"3. In a well-boring apparatus, a driving-gear, a section of drill-rod feathered therein, a collar secured to said section and having rollers, a section of well-casing, a circular track supported thereby, a driving-shaft and counterbalance means connected with the well-casing to hold it with its circular track up against the rollers carried by the drill-rod; whereby the said well-casing and drill-rod can sink automatically as the boring progresses, and can also be raised to permit of the insertion of successive lower sections, said driving-gear being held against vertical movement with the drill-rod and well-casing."

The control of the Davis patent has passed into the hands of Mr. Charles R. Allen, the well known coal man of San Francisco and Oakland, who probably understands the possibilities of the oil business on the Pacific Coast as well as anyone. Mr. Allen has made a careful investigation of the merits of the Davis machine and is confident that it has in it a great many possibilities for good. The advantage of the tool is that a well may be sent down continuously without drawing the tool out from the time it is put in until the well is completed, and the well may be driven as fast as new pipe can be connected, the same size all the way down. When

completed the tool is withdrawn and the well is finished. The drill will go through anything, and being a solid face it will be much better, it is claimed, than a diamond drill, besides being manufactured at only a fraction of the cost. Mr. Allen proposes to give some party of guaranteed responsibility a contract to take the state right to handle it, to pay for the construction of a complete outfit, and who will make it a business of putting down wells.

Mr. Allen has every faith in the machine himself, and backed by his good opinion and by the capital which he could easily put into the proposition, the Davis machine ought to soon come into general use among the oil-well drillers of the Pacific Coast.

With this machine there will be no difficulty in shutting off the water or in going through heaving sand.

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# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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ONE YEAR .....\$2 50  
SIX MONTHS.....1 50  
THREE MONTHS.....1 00  
SINGLE COPIES.....10c

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MONEY should be sent by Postal Order, Draft or Registered Letter, addressed to Pacific Oil Reporter, 318 Pine street, San Francisco, rooms 31-32-33. Communications must be accompanied by writer's name and address, not necessarily for publication, but as a guarantee of good faith.

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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:

The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
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SATURDAY, ..... AUGUST 22, 1903

For nearly two weeks the editor

of the PACIFIC

OIL REPORTER

Stock Muddle has been con-

finued at his

home with a most painful malady,

and his knowledge of the events

of the outside world during that

period seems to be limited to the

fact that Corbett was defeated,

and that on account of the slump

of prices in stock most of the

stockholders of the Home Oil

company are crying "fraud."

We do not know the particulars

about the Home Oil affair, but on

general principles we feel war-

ranted in making the assertion

that if our knowledge is approx-

imately correct the Home Oil com-

pany is all right, its condition is

practically the same as it has been

for many months, and that its af-

fairs, if properly handled from

now on, will be and are now in a

satisfactory condition.

The whole trouble seems to

have been caused by the sudden

placing on the market of a large

block of stock.

The price of any stock will be

weakened if a big block is put on

the market with instructions to

sell. If President Wright should

unload 20,000 shares of Peerless

stock in one week at whatever

price the market would give Peer-

less stock by the end of the week

would be quoted from \$13.50 down

to \$5 or less. The same thing

would happen to any stock unless

it was strongly protected.

President Ellis, of the Home

Oil, is said to have unloaded a lot

of his stock, which cost him 13 cents, at prices which in a few days dwindled down to \$1.60 and less.

Now come the newspaper rumors that Mr. Ellis has left the State for Wyoming, and a lot of implications follow that bode no good to the Home Oil company.

The fact is that Mr. Ellis has been visiting the Wyoming oil fields almost every month, for a long period as President of the Atlantic and Pacific Oil company, which company has two or three good wells, and a prospect of opening up one of the most valuable oil properties in America. It may be Mr. Ellis wanted to get his money out of Home Oil, and put it into Atlantic & Pacific oil stock, but the fact that he has sold out his Home Oil stock is no sign that he has proved false to the company, and his going to Wyoming last week is only one of a dozen similar trips.

As regards the Home Oil company, it has been generally known among oil men that the wells of the company for some months have not been yielding more than 600 barrels a day.

The wells have been on the pump for years. Their production comes from a pocket of peculiar oil found in no other district in the State. This pool is being slowly emptied by the wells of the Home Oil, Chanslor & Canfield and Coalinga Oil companies. The Home wells have not been cleaned out in years. The result of the decreasing pool and poorly conditioned wells is that the supply of oil obtained is slowly diminishing, and will continue to diminish unless new wells are drilled or the old wells cleaned out.

As regards the report that the wells are being flooded with water which is driving out the oil, we do not believe it.

On Saturday the stockholders held an indignation meeting, vented their spleen on President Ellis, and appointed an investigation committee of John Hinkle of Berkeley and Messrs. Sig Wormser and W. W. Phillips of Fresno. The last two men were prominent speakers at the indignation meeting and intimated their suspicions of fraud.

Now, if Messrs. Wormser and Phillips own up that they are defrauded, it is largely their own fault if they have been. They live at Fresno, near the Coalinga field with which they are both familiar. It would seem that these gentlemen could easily have taken a run once in a while to the field and satisfied themselves the wells were all right. It's a case of hindsight better than foresight.

Then here comes the broker Joe Toplitz to the indignation meeting with war paint and bells on, crying aloud in the agony of

his grief and mortification, and complaining that President Ellis ought to have protected him in his business.

When a broker gets squeezed good and hard he generally suffers quietly and bides his time to get even. It was a new experience to poor Joe apparently, who knows what it is to get others between the upper and nether millstone, but who does not often find himself there. Joe likes to be the squeezer. This time he was the squeezee, and he howled. We should have liked to have seen poor Joe, "suffused as to his shining eyes with tears," a voice choked with indignation, hands raised in Ciceronian denunciation and calling the wrath of Jove down upon the heads of those unprincipled sharpers, the directors of the Home Oil company.

We missed the big fight and the Home Oil indignation meeting. Life has no more attractions. Come swift Death!

The sum of the whole matter is that we believe the Home Oil company is all right. It has contracts ahead for all the oil it can produce for five years at good prices—12,000 barrels a month at 65 and 70 cents. The stock ought to be worth and is worth today at least \$2.50 a share at the lowest. It is worth really much more. It will sell again, we believe, for a high figure.

Those who sold out at a low figure (there were very few) lost money. Those who bought Home stock for less than \$2 a share paid less than the stock was worth, and made money.

In concluding we wish to call attention to two points:

First—The Standard Oil company probably knew what it was doing when it made a long term contract with the Home Oil and Coalinga Oil companies to take practically the bulk of 24,000 barrels a month. The Standard thought three months ago these companies could produce the oil, and they think so now. The judgment of the Standard is worth something.

Second—If the Home Oil wells are lessening their yield and are becoming filled with water the same conditions are happening to the Chanslor & Canfield and Coalinga Oil companies adjoining. If any one thinks these wells, at least some of them, are not good producers, or that they are filling up with water, let him ask either Mr. Chanslor or Mr. Canfield and he will quickly be undeceived. All these wells are in the same group and yield the same oil. What can be said of one portion of this field can be said of all of it. As yet the wells of the Home Oil company are producing a fair quantity of oil and no amount of juggling with stork or bearing the market can make it otherwise.

## COLLECTING EXHIBITS

### State Mining Bureau Gathering Samples of Oil.

Marion Aubury, assistant in the field to the state mining bureau, is at work in the Kern county oil fields collecting specimens of oil, data on the formation, etc., for the state exhibit at St. Louis. Mr. Aubury is working in the Kern River field at present but later will make a tour of Sunset and McKittrick. When his work is done here he will go north to Coalinga.

Three gallons are taken of each kind of oil selected, and this is taken to San Francisco, where an analysis is to be made with a view to determining the properties of the oil. The specific gravity will be ascertained, also the flash test, and other information of vital interest to consumers as well as producers.

The analysis of each specimen will accompany the exhibit to St. Louis, where the oil will be displayed in glass jars. When the collection is complete it will be exhibited in San Francisco before being taken east.

Mr. Aubury will, perhaps, later be assigned to the work of collecting a mineral exhibit for the fair, in which event the mines of Kern county will occupy considerable of his attention.—Californian.

### Petroleum vs. Petrol.

Motorists will be interested, says the London "Telegraph," in the trial of various carburants, or fuels for motor-car engines, which are being carried out by a committee of the Automobile Club of France. The latest results are of high importance, for after testing several brands of petrol and alcohol, it was suggested to try ordinary petroleum, such as is sold for burning in lamps. A small quantity was procured, and it was found that it showed a higher efficiency than either petrol or alcohol. This was, of course, to be anticipated, but the difficulty has hitherto been to vaporize it satisfactorily. Until further tests have been made, it would be hasty to assume that petroleum can be used in the place of the more volatile spirits, but the fact remains that it was employed in a carburettor designed for the vaporizing of petrol or alcohol, and that it gave better results. Should further experiment lead to the discovery of a satisfactory method of employing petroleum, it would be of vast importance to the motor-car industry, since the heavier oils are not only much cheaper than petrol, of which the supply is comparatively scanty and the price high, but it can be obtained anywhere.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



## A NOTABLE COMPARISON.

### The World's Two Greatest Oil Fields, Baku and Kern River Compared.

An Opinion of the Relative Productiveness of These Two Great Fields by Dr. C. T. Deane, Secretary California Petroleum Miners' Assn.

It is proposed in the following article to compare briefly a few of the interesting facts of the two great oil fields of the world, viz., Baku in Russia and the Kern River district in Kern county, California. I say the two great oil fields of the world knowingly, for I do not believe there has ever been discovered a like quantity of oil in a given amount of territory elsewhere. The proven lands of Baku contain 2,450 acres and the amount of oil produced so far has been over (800,000,000) eight hundred million barrels. Kern River has 4,000 acres of what we call first-class PROVEN land and has produced during the last three years about 20,000,000 barrels. I have stated frequently that I believed there was over 1,000,000,000 barrels of oil in the Kern River district and I still believe it is a most conservative estimate.

The oil sand at Baku is very similar to that in the Kern River district although the sand in the former district is deeper. It is estimated by experts that the sand contains about 25 per cent of oil and the pay sand in Kern River will average over 300 feet in thickness.

The character of the oil differs in the two districts, that at Baku being a naphthene base and therefore superior for refining purposes, while the Kern River oil has an asphalt base.

The gravity of the oil in the Russian fields is about 32°, while that in the California fields averages about 16°. The wells in the Baku field are much deeper than those in Kern, many of them being 2,000 feet while Kern River wells average less than 1,000 feet. In nearly every other respect we have the advantage of the Russian field.

The cost of wells in Baku is over \$30,000, in Kern \$3,000. We quote from our consul there as follows: "This will seem an impossible figure to American producers who have not followed the reports of this consulate for some years, or who know nothing about the drilling methods at Baku; but the explanation makes it seem a reasonable estimate. To start with, the Baku man's machinery and rig ready for drilling costs much more than the average American well completed; then comes the expense for pipe, which

is insignificant in the United States. In the Baku field, to get to a depth of 1,500 feet, they start with not less than a 26 inch hole, and in deeper territory with even larger holes, up to 32 inches in diameter. The pipe used is 38-inch iron riveted, in 4-foot joints, which are joined by riveting. They drill ahead of the pipe and then drive it, and they continue driving the first pipe until it collapses or for some reason will go no farther; then they start another string of a diameter which will go inside the first, generally 2 inches less, and when this can no longer be driven, then another string inside it, and so on until they strike the oil. In deep wells, there is sometimes more than \$10,000 worth of pipe. Then the cost of drilling (contract) is very great, as the contract is generally made at about \$5 per foot up to 700 feet, the price increasing about 75 cents per foot for the next 70 feet, \$1.50 for the next 70 feet, and so on till after 900 feet the price is about \$7.50 per foot. Thus, a 1,500-foot well will cost nearly \$10,000 for drilling. And when the oil is struck the well is by no means finished, for then comes the process which is called "excitation," really meaning cleaning out the sand until the well commences flowing or yielding nearly pure oil by pumping. This work lasts sometimes months, and generally not less than two or three months, and adds materially to the cost of the well."

I had a contract offered me last week to drill ten wells in Kern River for \$30,000. I mean the drilled well (not on the pump). Cost of land in Baku \$50,000 to \$75,000 per acre, most of the land there, is owned by the government and is only leased to the producers on a large royalty. Cost of land in Kern River, \$5,000. Cost of transportation to market, I have not the exact figures, but the distance from Baku which is on the Caspian sea to the port of export on the Black sea is 550 miles, while if we assume that San Francisco is the port of export, or rather market for the Kern River oil, we have only 300 miles of transportation.

The water problem in the Baku fields is assuming grave proportions, they are pumping there in the neighborhood of 100,000

barrels of water a day, while in Kern River we have solved the water question which seemed for a time serious.

The Kern River field is so perfectly even throughout, the sand laying at known depths and thickness, that the DEEP water problem is known to a few feet and a driller would be considered criminal who would penetrate it. The surface water is easily controlled as the rainfall in that section does not average over 5 inches.

The total amount of crude oil produced in Baku in 1901 was 81,000,000 barrels, in 1902, 76,000,000 barrels. The amount of residuum (fuel oil) shipped in 1901 was 37,000,000 barrels, 1902, over 40,000,000 barrels. There was over 4,000,000 barrels of crude oil shipped, over 9,000,000 barrels used, lost or wasted in the field and the balance refined into kerosene, lubricants, etc. The average production of the wells at Baku is about 150 barrels per day, about the same as the Kern River field. The cost of oil in the two fields at present is 30 cents, but the profit to the American is much greater, owing to the less cost of land and wells. IN BAKU ONE WELL WILL COST AS MUCH AS TEN WELLS IN KERN RIVER.

The local conditions existing in Russia preclude the same economical working as with us, and although many Russian and English experts are familiar with both fields it has been demonstrated that wells cannot be drilled according to our methods. In the Kern River field the well is commenced with an 11½-inch and sometimes even with a 9½-inch casing, while in Baku the hole is commenced with a 26 and sometimes even with a 32-inch casing. We use a pump through a 7½-inch casing; they a bailer through a 12 or 14-inch casing.

There are about 400 producing wells in the Kern River field and they are furnishing half of the total output of consumption at the present time, if the latter continues to increase as it has for the past three years (and there is no reason to suppose it will not) oil will go much higher or there will have to be a great many more wells drilled. The future looks very bright and the price of land will materially increase.

We have for a market all the Pacific Coast states, the Orient, and, besides the islands of the Pacific, the whole South American coast.

#### FROM GEORGIA.

Small Hope for Oil in Southwestern Part of that State.

During the spring of the present year, Mr. T. W. Vaughan, of the United States Geological Survey, made a trip into Georgia for the purpose of looking into the probabilities of the occurrence of

petroleum in that state. One of the localities visited by him was the vicinity of Albany, Dougherty county.

During the preceding year (1902) Mr. Vaughan spent a month in making a geological reconnaissance from the edge of the crystalline rocks near Macon as far south as Albany. The object of his work was to ascertain whether the geological conditions gave any indication of the occurrence of petroleum. The geology is extremely simple, and there were no indications of the geologic structure usually associated with oil pools. There was an entire absence of any of the surface manifestations in the way of gas, oil, sulphur, etc., which are ordinary accompaniments of oil in other regions. Mr. Vaughan is of the opinion, therefore, that no oil will be found in western Georgia in the strip of country extending from Macon through Montezuma, Americus, and Albany, that is, from Bibb county through Crawford, Houston, Macon, Dooly, Sumter, Lee, and Dougherty counties.

#### THINK IT WORTH MORE.

Pinal Oil Company Refused to Sell for a Half Million.

The big sum of \$420,000 was last week offered and refused for a tract of land containing 450 acres in the Santa Maria valley, that less than three years ago could have been purchased for less than \$420; and, it is said, should this offer be doubled, it is a question whether or not the present owners would dispose of their valuable property, says the "Independent."

A. H. McKay, representing himself and other wealthy oil men of San Francisco, offered the stockholders of the Pinal Oil company of Santa Maria \$3 a share for the whole issue of 140,000 shares of the company, whose properties consist of 450 acres of land nine miles from Santa Maria and two miles from the valuable properties of the Western Union Oil company, upon which are three oil wells, one of which is the Pinal gusher, which is believed to be the most valuable oil spouter in the western states.

The capital stock of the company is 140,000 shares, at the par value of \$1, or a capitalization of \$140,000. Mr. McKay's offer is thus three times its par value and the owners of a majority of the stock believe their property is worth nearly a million dollars. They believe that nearly every foot of land they hold is oil bearing; in fact, a considerable portion of it has proven to be. It is not only oil bearing, but the finest wells in the state are located thereon, and it has the advantage of being situated near the railroad and is high enough to make it feasible to pipe the oil a distance of several miles by gravity.



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### COALINGA.

The Pleasant Valley Stock company spudded in last Saturday after experiencing some delay in rigging up.

The Roberts Oil company on section 1 is rigging up. Messrs. Brown & Gargigan will drill the well having completed their contract with the Esperanza Oil and Gas company.

Well No. 5 of the Maine State Oil company has been finished at a depth of 1,300 feet, and is proving an unusually good producer excelling some of the other wells of the company. Rigging up No. 6 will begin immediately.

Bud King, foreman of the Esperanza Oil company, says that the new well is a fine one, and, although not yet developed, promises to be as good if not better than the others, and he thinks it will flow at least 400 barrels per day.

A gravity line is being laid to connect the Commercial Petroleum company with the P. C. O. tank on section 6. The company has already over 8,000 barrels of oil stored in its reservoir which will be delivered to the P. C. O. company as soon as the gauge tanks are up.

The New San Francisco Crude Oil company's well that was finished last week is now pumping at the rate of about 150 barrels per day. No. 1 well into which the water broke in some time ago is now being fixed up which will necessitate pulling the string of 5 3/4-inch casing.

The Wabash Oil company certainly brought in a good well at a comparatively shallow depth. The well has been flowing out of a five-inch pipe without being packed and what she will do under the pump on being packed remains to be seen. The oil is of a 16 to 17 gravity, contrary to the prediction that there was only heavy oil at the southwest end. This well proves an immense territory indicating that the pitch of the strata is considerable less than what had been supposed, extending the oil belt way into the valley. The company is now erecting two 1,000-barrel tanks for storage. Until now the oil has been flowing to waste lacking storage provision.

The rumors that have been current that the Southern Pacific R. R. company would build a pipe-line have at last become authentic by the arrival of fifteen cars of pipe. All sorts of speculations are afloat about the course of the proposed pipe-line through the various parts of the field. Nobody however seems to know anything official and the actual course of the line will only be determined by its laying. It seems very probable that the line will only take in the west side for the present as in that portion of the field the railroad company holds all of its valuable land which is proven though not yet developed. The fact that the company will not lease any more of its proven land on the west side is considered that they will begin operating for themselves. The advent of another pipe-line is arousing much interest among the producers who are now looking for the much talked of advance in the price of oil.

### KERN

The Junction is starting work on its No. 5 on 9, 29-28 at Kern River. This company is rushing operations.

The Monarch of Arizona is pushing development at Sunset, and will soon

have four strings of tools at work.

The Associated has completed about ten wells on its Central Point lease on 4, 29-28 during the last month, some of which are proving remarkably good producers.

Reports from the Cuyama valley all indicate great activity in locating, but very little in the way of development. Most of the promising oil territory there is said to be located two or three deep.

The Associated is having entire success with its water pumping plant on Kern River recently installed. Instead of the shortage of water experienced before the combine has now plenty for all its needs.

The Southwestern and Eastern Consolidated refineries are nearing completion and will be in operation in a month or so. Both these concerns will use the product from their own wells, which is now being delivered to the Standard.

The East Puente, on 4, 29-28, started work this week on its No. 7. This company is owned by San Diego capitalists, and is one of the best developed among the small properties in the Kern River field. Its land amounts only to ten acres and its production is said to be about 12,000 barrels a month.

The Carissa plains, which is occasionally confused with the Cuyama district, is quite distinct. There are but two operators at Carissa at present, these being John M. Wright and Charles H. Congdon of the Union Pacific. As stated a short time ago these companies have good indications, but have as yet developed no oil.

News has reached this city of a big oil strike by the Unoma Oil company, in which Messrs. Zartman and Richardson of this city are interested. The scene of operations is the north McKittrick district, formerly known as the Temblor. Oil was struck Saturday, the oil bearing stratum being eighty feet through. This is the biggest oil streak yet pierced in that section. The well is about 900 feet deep.

Clarence Berry, who has valuable oil property at McKittrick is just now at Dawson looking after his mining interests. Mr. Berry is one of the pioneers at Dawson and acquired his fame and fortune there. He is expected to come out of the north with another lump of gold this fall. In the meantime his partner Frank Keller, also one of the early Klondikers, is putting down some rich oil wells on a thirty-acre tract between the Kern River company and the San Francisco companies' lands.

The Superior, a company of which J. W. Crossland is secretary, will begin at once to drill its third well on 2, 11-24 at Sunset after a suspension of operations for about a year. Superintendent E. W. McCutcheon has just gone to the field to start work. The suspension for the past year has been due to the lack of a market but the completion of the Jewett & Blodgett pipe-line, which crosses the property, will remove this difficulty and give the company an opportunity to get its oil to the market. It is now getting itself into a position to take advantage of this. The company, in common with others, has given Jewett & Blodgett a right of way over its property. The company already has two good wells ready for pumping.

### SAN MATEO.

About six months ago the San Mateo County Oil company made an agreement with two experienced drillers, Youle & Mahoney, to complete their well at San Gregorio which had been drilled to a depth of 1,160 feet and then allowed to lie idle. Youle & Mahoney took the contract to complete the well to a depth of 2,000 feet and have worked steadily since they tackled the job, but in spite of the most persistent efforts and the use of the best tools they have only succeeded in deepening the well to a little over 1,600 feet. They are still at work on the well and hope ere long to strike a streak of good luck, which will enable them to complete the terms of their contract. The indications for oil in the territory where this well is being put down are excellent and the company deserves a great deal of credit for the perseverance it has exercised in continuing the operations so persistently.

### SANTA MARIA.

Work for oil development will soon begin on the Los Alamos rancho comprising 10,000 acres.

The Loma company's well has proven itself to be one of the very best wells in California. It is a second Pinal.

The Pinal company expects to have its pipe-line in working order in a few days and will then ship oil to San Francisco via the Pacific Coast railroad. A number of large tanks have been put up at Graciosa station with storage capacity amounting to many thousand barrels.

Ten thousand acres of the Los Alamos rancho will be exploited for oil in the near future. The property is at present partly involved in litigation, but as soon as the title is clear development work will begin. The property adjoins the famous Western Union holdings on the Careaga rancho.

The final papers in the sale of the tar Springs ranch, eight miles east of Arroyo Grande, were signed and filed for record recently. The purchaser is W. W. Clapp, a Pennsylvania oil man, and the consideration is about \$60,000. Mr. Clapp last year bonded the land from the owner, W. R. Sandford, of Santa Clara, paying down at the time \$5,000 as a guarantee. The remainder of the purchase price was paid the other day. The Tar Springs ranch is a valuable property, aside from its value as a stock range. Its passing into the hands of Mr. Clapp, a capitalist particularly interested in oil, means that the property will be thoroughly developed in that line. Its numerous springs of free asphaltum furnish unmistakable evidence that oil is beneath the surface in great quantities. So far, it has simply lacked proper development work along these lines; but now eastern capital has come in for the purpose of demonstrating the existence of an Arroyo Grande oil field and has faith in its ultimate success. The ranch contains about 5,000 acres, and is leased to Swall and Loomis, the Arroyo Grande butchers.

That northern Santa Barbara county is destined to be one of the greatest oil fields in the west was further demonstrated by the bringing in of another gusher by the Pinal company last Saturday. The new spouter is known as well No. 1, the first put down by the company some months ago. When the oil stream was reached, at a depth of about 600 feet, work was discontinued and a pumping plant installed. The well proved a good producer, yielding forty to fifty barrels a day. After No. 3 was put down and the marvelous flow of oil struck at 1,500 feet, the pump was taken out of No. 1, which is located on the same tract, and drilling continued, with the hope of tapping the lower oil-bearing stratum. It was pierced yesterday and a flow equal to that of No. 3

struck, the oil spouting above the top of the tall derrick. The casing was capped and will not be opened until some way is provided to store or ship the oil. In all probability the pipe-line to the railroad which has been talked of will be put in at once. The oil from both wells is high-grade, 27 gravity, and commands a better price than the product of other fields. The Pinal company has a tract of about 500 acres that might be termed waste hill land, worth but a few hundred dollars a year ago, when Mr. McKay secured it and induced some Santa Maria gentlemen to go in with him and put down the wells. After No. 3 was brought in, nearly half a million dollars was offered for the tract and refused, and now that Mr. McKay's predictions as to the extent of the oil-bearing stratum have been proved correct, probably twice that amount would not buy it.

### UTAH.

The Mt. Pleasant Oil and Gas company's well-boring outfit from Akron, Ohio, is expected to arrive in Kane county this week. F. R. Woodward of Denver, Colo., an oil expert in the employ of Lee A. Reynolds & Co., has been near Mt. Pleasant, and expresses himself as most agreeably surprised and highly pleased with the grounds, and says there is no question in his mind but that there is oil in plying quantities. He has located a great many veins on the ground, one forty feet wide, and groups of eight or ten in a place only a short distance apart, ranging from eight inches to eighteen feet in width. The veins run northeast and southwest.—Emery County Progress.

### WYOMING.

The Michigan Wyoming and the Bettys Oil company are both shut down waiting for material but expect to resume work by the first of the week. We are informed the Jager company will commence drilling in well No. 2 next week.

Altogether the situation is more encouraging than at any time since the discovery of oil in the U. P. well by Mr. Nebergall two years ago. With the new companies which will commence work this fall, more than 100 rigs will be at work by the first of October.

The Atlantic & Pacific company are now running four strings of tools and have three producing wells. Two more rigs will be constructed at once. Mr. R. V. Ellis, president of the company, arrived at the property Thursday and expressed himself as very much pleased at the outlook. A large amount of storage will be placed in the flat below the camp at once and the wells placed on the beam.

The only strike of the week was made by the American Consolidated Oil company on section 14, 13-118 last Tuesday when a heavy flow of gas was encountered in the second sand at a depth of 650 feet. The gas was at once utilized for fuel purposes and drilling resumed. The company are confident of a heavy flow of oil in the third sand at a depth of about 1,000 feet. Work in their No. 1 well on section 23, 15-118 is progressing finely and their second rig on the same section is well under way. We are informed the company will build two or three more rigs on 14, 15-118 in the near future.

Up-to-date maps of Kern River, McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

The PACIFIC OIL REPORTER is the only oil paper on the coast. Subscription \$2.50 a year.



**NEW PETROLEUM FIELD.**

**Nobel Brothers Discover one on the Caspian Sea.**

Recently a rare appearance gained the attention of the petroleum industry. On November 29, 1902, Nobel Bros drilled a petroleum well to a depth of 190 fathoms at a place situated at a distance from the Island Apscheron and from Grosny in the Berekel domain. This continued to flow periodically. The flow of petroleum proceeded almost hourly, whereby the petroleum first overflowed and then was cast up to the height of the boring tower. The production is somewhat inconstant. In twenty-four hours from 5,000 to 8,000 poods, sometimes as much as 15,000 poods, of pure petroleum of high quality were obtained. In its other qualities it resembles the petroleum of Baku.

The Berekel domain, whose territory has already been given away in large part for discoveries, is situated upon a plain on the western shore of the Caspian Sea, at a distance of 95 wersts from Petrowsk and 26 wersts from Derbent. The distance from the sea amounts to 5 wersts. The location is, therefore, just as favorable as that of Baku. Many years ago an experimental drilling was made at this place, but in consequence of unfavorable geognostic conditions—it was lacking in profile—it was abandoned. In the meanwhile the occasional ejection of mud and water, petroleum and sand from no great depth, formed an undoubted declaration of the presence of petroleum. The geological construction of the beds of Berekel, insufficiently examined, showed that the naphth-bearing zone appeared in the Tertiary system, especially in dark clay, sand and sandstone. According to the view of the geologist, G. Strishow, the strata in question form an anticline on the banks of the sea from north to southeast, passing through faults. This course, however, is not fixed, but he believes that the well of Nobel Bros. has not reached the naphth-bearing sand strata at a depth of 190 fathoms. Previous to reaching the petroleum the well was sunk through dark slate with intersecting marl strata. The last sample taken from the well consisted of an oily, clay-like sand with fragments of a light gray marl. The latter, however, probably spread over the sand into which the pieces of marl had fallen. The clay mixed with sand would have the same origin. The naphth-bearing strata are pure sand.

From the fact that the well does not lie in the axle of the anticline the fountain horizon in other places must be at a lesser depth. These inferences are unsafe for lack of sufficient geological data, but the fact of the continuous production of the well, as also the

favorable indications of the presence of naphtha, allows it to be hoped that one is here concerned with a new promising petroleum territory favored by the geographical position. The information concerning the drilling of the first well was sufficient to allure numerous promoters, in consequence of which the minimum price of from 500 to 1,000 rubles per parcel established by the crown has increased from 15,000 to 20,000 rubles, with a duty of 2 kepeks per pood of naphtha. A total of 120 allotments were entered. Noteworthy is the inclination of the promoters for further increasing the production which, without regard to the existing condition of the market and the insufficiently secured abundance of the new fields, is often enough to ruin them.—Torgowopram. Gazeta.

**ALASKA OIL FOR S. P. CO.**

**The Railroad People Investigating the Northern District.**

The Southern Pacific, which is now using as fuel for about 600 of its locomotives, 10,000 barrels of California and Texas fuel oil, has sent a commission of three experts to Alaska to examine reported oil fields there and to take steps to acquire such of them as in their opinion they deem valuable. This expedition is quietly being sent by President R. H. Harriman for several reasons. One is that he hears from a reliable source that large tracts of Alaskan country promise much in the way of fuel oil production, and will eventually become very valuable.

He has another reason. Fuel oil is a most economic fuel for the Southern Pacific. Not more than half of the company's engines are oil burners, but yet the oil that has supplanted coal has reduced the total annual fuel bill of the company over \$500,000. When all of the company's locomotives are burning oil the fuel bill per year as compared with coal, will, so the officials state, easily be \$1,000,000 cheaper.

Both in the lower San Joaquin country and in the Beaumont district of Texas, the company has apparently unlimited supplies of oil. Particularly in the San Joaquin the company has lots of land that is supposed to be oil-bearing and which it will not be called upon to exploit for many days unless its present sources of supply run out. To guard against any material curtailment of present sources of supply or any great advance in price per barrel, Mr. Harriman is having the Alaska fields exploited with a view to purchasing some of the best tracts and holding them indefinitely for the company through the new oil company recently organized by the railroad.—Oakland Tribune.

**OIL IN SMELTING.**

**Copper Ore Successfully Reduced by New Oil Process.**

William Kemp, who is well remembered in Keswick, Shasta county, where he worked for months in the smelter, is now living in Arizona and according to the following from the Tucson "Post," he has made an important invention in connection with using oil for fuel in smelting:

"An invention which promises to revolutionize the smelting of ore is being perfected at the foundry. William Kemp, a smelter expert of some prominence in Arizona, has been working for the past eighteen months on a process for smelting ore by the use of oil instead of coke. He has proceeded far enough with his invention to insure success with a certain class of copper ore, which he demonstrated by two runs of his furnace made in the past few days.

"The furnace which Mr. Kemp has constructed for experimental purposes would smelt twenty-five tons of ore in twenty-four hours using coke. At the second run of the furnace, which was more successful than the first, thirty tons of ore were successfully smelted in twenty-four hours, and the copper matte drawn from the furnace carried about sixty per cent copper. Thus far the experiments have been carried on with copper sulphide ore, using iron and lime as a flux. The furnace has been practically demonstrated a success smelting sulphide ores, and the inventor intends to further experiment with carbonates and oxides, confident of being able to smelt them in his oil furnace by the use of a very small amount of coke. The furnace used is an ordinary water-jacket, thirty-six inches in diameter, fitted up with four oil burners annexed to combustion chambers whereby the oil is made into a flame and mixed with the

blast under heavy pressure and is then forced into and through the ore, producing a roasting and smelting action at the same time.

"By repeating this process with the copper matte the inventor expects to reduce the matte to pure copper, doing away with the expensive converting process now in vogue. In the Southwest, where oil is cheaper than coke, this furnace will make a saving of from two to three dollars per ton on ore smelted, and will entirely do away with the roasting of sulphide ores.

"Mr. Kemp, the inventor, applied for his first patent on his furnace about a year ago. A patent covering every principle of the furnace as then perfected was granted last April but since that time several additional patents which cover improvements made on his original patent, have been applied for."

**Recent Patents.**

The following recently granted patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Combined cable and rotary rig for drilling deep wells, L. C. Sands, Jr., Pittsburg, assignor to Oil Well Supply company, same place; No. 732,785.  
Oil well drill, H. R. Decker, Beaumont, Texas; No. 732,925.  
Partition plug for oil wells, C. S. Little, Montpelier, Indiana; No. 733,492.  
Pump rod adjuster for oil wells, A. C. Price, Renfrew, Pa.; No. 733,505.  
Well drilling machine, G. D. Loomis, Tiffin, Ohio; No. 733,980.  
Oil tank, C. W. Castleman, New Orleans, La.; No. 734,045.  
Well machine, Arthur Cameron, Chicago; No. 734,510.  
Rope socket swivel, H. M. Brittan, San Francisco, assignor to the American Steel and Wire company; No. 734,664.  
Underreamer, Edward Double, Santa Paula, Cal.; No. 734,833.  
Sucker rod joint, E. B. Campbell, Bakersfield, Cal.; No. 735,030.  
Antifriction device for sucker rods, W. L. Black, Fort McKavett, Texas; No. 735,200.  
Well drilling machine, W. N. Dufford, Findlay, Ohio; No. 735,222.  
Flange Union, same; No. 735,221.  
Apparatus for raising liquids from wells, T. F. Moran, De Young, Pa. and F. J. Moser, Kane, Pa.; No. 735,557.  
Pump for artesian wells, T. H. Gallagher, Carnegie, Pa.; No. 735,667.

**TWO RICH STRIKES.**

Again the Omaha has struck high values. August 1st a new two-foot vein, lowest assay \$61.97 a ton; August 7th, third tunne struck the same ledge, that had widened and carries higher values. Write for particulars. Stock selling rapidly. Will soon advance and become a big dividend payer.

DEBENTURE SURETY COMPANY (Inc.)

Rialto Building, San Francisco, Cal.

Mention this paper.



## Liquid Fuel and British Railways.

We have had occasion many times recently to refer in our columns to the question of the use of liquid fuel in connection with British railways, for the subject is one which cannot be dilated upon at too great length, nor can the advantages accruing from the use of liquid fuel as a motive power be over-estimated. It is unnecessary here to traverse the history of oil fuel in regard to railways, for, since its adoption twenty years ago upon the railway systems of Russia, it has proved itself in every respect, superior to coal. But the success which has attained its use both on the continent and in America, however, has, up to the present, scarcely been repeated in this country, for to-day we find that in England its march of progress has been very slow indeed. Almost four years ago, the majority of the large railway companies paid careful attention to the claims of the new fuel, while one or two decided, after going into the subject thoroughly, to conduct a number of experiments with a view to adopting liquid fuel, the great Eastern company figuring very prominently in this respect. With regard to the trials upon this railway, they were in every way satisfactory, and the work of adapting locomotive boilers to the burning of oil fuel was commenced, the result being that the example set by the Western railway of France was followed, and several of the fastest expresses were run with the new power. From that time, however, oil fuel on English railways has made little advance, and to-day the difficulties cluster round the question as they did years ago. One great trouble in this respect is, of course, due to the limited supply, or, to be more accurate, the distance of the productive areas from the British markets, while another is that of the price of the fuel itself. We are afraid that occasionally the importance of the British liquid fuel market is under-estimated by the producers themselves, but, for our purpose, we will look at bare facts. During the past year somewhere about 9,000,000 tons of coal were used upon the railways of the United Kingdom—an amount which in itself suggests the vast scope which is offered to-day to liquid fuel, for supposing for a moment that coal was discarded for oil fuel, the quantity of the latter article which would be used would at all events reach 4,500,000 tons. But ere this much-desired change can be brought about, there must necessarily be a long period of preparation and organization on the part of the producers and distributors, for it is with them that the initial stages

of the fight rests. As we have said, the liquid fuel market in this country is a factor which cannot be ignored by those whose interests are wrapped up with the future of the oil industry, and we, on our part, regret that in this direction the palpable advantages which are offered by the adoption of liquid fuel do not seem to have received attention on the part of the oil producers and distributors such as has been warranted. But even here there are many difficulties. So far as Russia is concerned, where oil fuel is practically the only fuel obtainable, a ready market is found at home under ordinary circumstances, and thus she can do little at present in regard to supplying whatever demand there may be in this country, while, in addition, the avowed policy of the government is unfavorable to the exportation of that for which there is such a demand at home. In America, too, liquid fuel finds many consumers, for the demand is quite equal to the supply, and thus we have to look around to other less developed territories for our fuel of the future. In this direction, Roumania offers great facilities for supplying the demand which has now been created, and, in our opinion, it is to this country that we must look. The question of price is, of course, one of great moment to the railway companies, and in this connection we notice that the Great Eastern Railway company has had, in a number of cases, to revert to the use of coal for engines which have for the past few years been using liquid fuel, while the London and Southwestern Railway company intimate that they have given up consideration of the liquid fuel question for the present, inasmuch as "the cost in the use of oil, as compared with the coal, makes the use of the former prohibitive."

But there is another subject than that of economy which should have great weight with the railway companies. The reduction of labor and increase of speed, which is occasioned by the use of oil fuel is an important factor which cannot be overlooked. The facility with which oil is handled and stored as compared with coal says much for its more general adoption as a fuel, especially on the railways where time is the greatest consideration, and when ease with which long distance runs can be maintained is so necessary.

**WANTED**—To rent or buy Portable Drilling Machine, Star preferred, capacity 750 feet or more. Also 400 feet 7½-inch casing. Address, with full particulars, Box L, Pacific Oil Reporter.

Subscribe for the PACIFIC OIL REPORTER.

## ANENT OILING ROADS.

### Oil and Deep Dust will Not Work Well Together.

A correspondent of the Suisun "Republican" writes to that paper the following:

"Much is being said and written at the present time about oiling roads. The writer had occasion to drive over about six miles of oiled road in Solano and fourteen miles in Napa county last week, taking particular notice of the entire distance. I found portions of the road which, to all appearances, were greatly improved by the oil. Then I found portions where, too, there seemed to be no lack of oil, that were badly cut up. Again, I passed over miles that were placed in a most wretched condition by the application of oil—roads oiled last year—that were cut up similar to half dried mud, the oily mud clinging to the wheels of the vehicle. Neither buggies nor wagons were driven over them any longer but new roads had been made on either side of the oiled portion.

"I interviewed liverymen and teamsters and failed to find one who believes that oil applied on deep dust or fine soil will ever make good roads, but where applied on sand the road is improved by the oil.

"Our roadmasters and city officials should investigate the matter thoroughly before any useless expense is incurred. If any of them will drive over certain roads both in Solano and Napa counties, they will be convinced of the truthfulness of what I have said and not advocate the oiling of roads where there is much dust. A good part of the road from Napa city limits to St Helena is almost impassible for teams. It is nicely graded, but there is too much dust. A stitch in time or look before you leap may be best even for those who have charge of public streets and roads."

### Spindletop To-day.

At Spindletop rigs are going up and new wells are going down the same as if nothing had happened in other parts of the State. There is a great deal of activity at the Spindletop oil field, and indications that are most favorable. There are 134 wells pumping and thirty-one wells drilling, while the estimated production is 22,000 barrels a day. Beaumont exports are not so great as formerly—a fact accounted for by the high price which puts oil beyond the fuel stage. The lessening of production should also be taken into account. While the shipments by rail have fallen off, those by water through Port Arthur have steadily increased. The storage accommodation has been taxed, but with the pipe-lines of the Guffey and Texas companies working to their full capacities

the supply at the coast will soon be replenished. The estimate of shipments from the Beaumont district the past month will aggregate 1,250,000 barrels. The outlook for the field is bright, and the fallacy that the field has passed from the stage of usefulness has been exploded. Thoughtful and hard-working men will continue to develop the old field, and bring to the surface thousands of barrels of oil.

### Activity in Indiana.

Since the Parker city pool opened up in Indiana with its gushers the people have become excited and leasers are at work in all parts of Randolph county. Some idea of the activity in oil and the oil interests in that county can be had from a statement from the county seat that since July 3rd 130 leases covering more than 10,000 acres have been recorded and that of this number forty-nine leases were recorded in one day, covering nearly 4,500 acres.

These leases cover territory in the southwest, west, northwest and central part of the county. Only the territory in the west part of the county, in the neighborhood of Parker city, has been developed to any great extent, yet sufficient investigations have been made in the southwest, northwest and central territory to convince oil speculators that the territory is a desirable article to have covered by oil leases.

### Sour Lake's Resources.

There are about 30 flowing wells in the Sour Lake field, about 23 pumping wells, 12 wells not being worked at all owing to the low price of oil, 79 wells drilling and 56 derricks erected on which work has not yet commenced. There are 105 wooden tanks averaging 12,000 barrels, 7 iron tanks averaging 37,500 barrels, 1 iron tank with capacity of 55,000 barrels. There are being built 20 wooden tanks averaging 1,200 barrels; 1 iron tank, capacity, 37,500; 2 earthen tanks, capacity, 100,000 each; 1 tank, 225,000 barrels; 1 tank, 15,000 barrels, and one tank, 3,000 barrels. From the flowing and pumping wells are taken daily about 35,000 barrels.

### Advertised the Field.

In its last number the "Petroleum Review," an English oil journal, published in London, devoted several pages to reproducing a large part of the article on the Coalinga oil field that appeared in a recent edition of the PACIFIC OIL REPORTER. The reproduction also included four of the leading illustrations, and gave English oil operators a very good idea of the importance of the Coalinga field.

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We are authorized by the owners of a large acreage in the Coalinga field to offer a 40-acre tract for \$10 an acre to anyone organizing a company for immediate development. The land is in the western extension of the field and directly in line with the recent big strikes. It is a "sure shot" proposition. It is only a question of depth and the most recent strikes demonstrate that the sands will be encountered at less than one thousand feet. We know of no other such opportunity in the State for those who are ready to undertake immediate development. We candidly believe this land will be worth \$1,000 an acre inside of a year.

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**U. M. THOMAS, Manager**

**318 PINE STREET**

**SAN FRANCISCO, CAL.**



## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, August 19th:

AZTEC.			
250 at	8½2		\$ 206 25
CLAIRMONT.			
200 at	20.		40 00
FOUR.			
500 at	68.		340 00
HANFORD.			
2 at 132 00			264 00
HOME OIL.			
100 at	2 30.		230 00
100 at	2 25.		225 00
100 at	2 25 (S 90).		225 00
300 at	2 20.		660 00
850 at	2 10.		1,785 00
100 at	2 10 (B 90).		210 00
600 at	2 05.		1,230 00
100 at	2 05 (S 30).		205 00
1,150 at	2 00.		2,300 00
100 at	2 00 (B 10).		200 00
900 at	1 95.		1,755 00
1,200 at	1 90.		2,280 00
400 at	1 85 (S 90).		740 00
200 at	1 80.		360 00
500 at	1 80 (S 90).		900 00
400 at	1 75.		700 00
1,700 at	1 70.		2,830 00
400 at	1 70 (B 30).		680 00
2,100 at	1 65.		3,465 00
1,000 at	1 65 (S 30).		1,650 00
100 at	1 65 (B 30).		165 00
2,175 at	1 50.		3,262 50
800 at	1 45.		1,160 00
300 at	1 45 (S 90).		435 00
2,350 at	1 40.		3,290 00
700 at	1 37½.		962 50
950 at	1 35.		1,282 50
400 at	1 35 (C).		135 00
200 at	1 30.		260 00
625 at	1 25.		1,282 00
400 at	1 17½.		470 00
900 at	1 15.		1,335 00
200 at	1 15 (B 30).		230 00
100 at	1 15 (S 30).		115 00
INDEPENDENCE.			
4,500 at	17.		765 00
500 at	17 (C).		85 00
LION.			
1,000 at	04.		40 00
MONARCH.			
300 at	55.		165 00
200 at	55 (S 3).		110 00
150 at	57.		85 50
100 at	56.		56 00
MONTE CRISTO.			
500 at	85.		425 00
OCCIDENTAL OIL.			
4,600 at	18.		828 00
500 at	18 (C).		90 60
REED CRUDE.			
120 at	38.		45 60
4,169 at	40.		1,667 00
SOVEREIGN.			
1,700 at	37.		629 00
600 at	38.		228 00
STERLING.			
100 at	3 00.		300 00
TOLTEC.			
200 at	20.		40 00

42,391 Shares	Amount \$43,184.45
NORTH SHORE R. R. CO.	
10 at 5 00.	50 00
PACIFIC COAST BORAX.	
10 at 165 00.	1,650 00
20 Shares	Amount, \$1,700

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		1.45
Apollo.....		
Asso. Oil Co Stk. Tr.		
Certificates.....	.23	.25
Aztec.....		
Bay City.....		
Bear Flag.....	.06	
California Standard.....		
Caribou.....		
Central Point Con.		
Chicago Crude.....		
Clairemont.....	.30	
Esperanza.....	.80	
Fauna.....		
Four.....		
Fulton.....	2.50	2.90
Giant.....		

Hanford.....	125.00	131.00
Home.....	1.40	
Homestake.....		
Imperial.....		
Independence.....	.17	.18
Junction.....	.22	
Kern.....	5.00	5.50
Kern River.....		12.50
Lion.....	.03	.04
Monarch of Arizona.....	.56	.58
Maricopa.....		
McKittrick.....		.30
Monte Cristo.....	.75	.85
Nevada.....		
Occidental of West Va.....	.18	.19
Oil City Petroleum.....		
Peerless.....	13.50	14.25
Petroleum Center.....		
Pittsburg.....		
Piedmont.....		
Reed Crude.....	.40	.41
S. F. & McKittrick.....		2.65
San Joaquin O. & D.....	5.50	
Senator.....	.70	
Shamrock.....	.23	
Sovereign.....	.37	.39
Sterling.....	2.50	3.00
Superior.....	.05	
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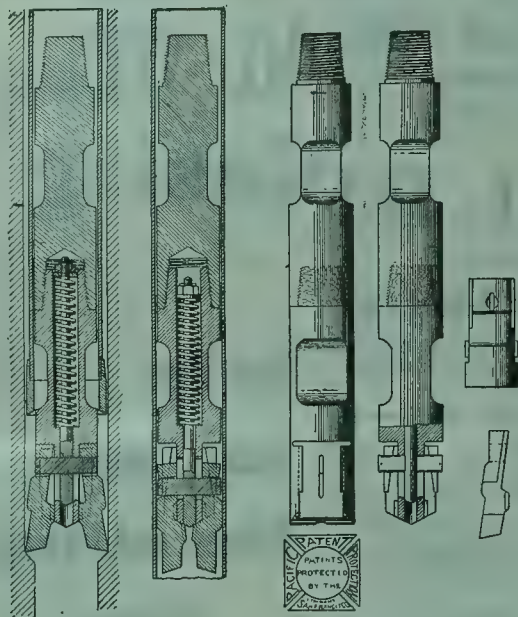
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# PACIFIC OIL REPORTER

VOL. 4. No. 43.

SAN FRANCISCO, CAL., SATURDAY, AUGUST 29, 1903.

PRICE, TEN CENTS.

## ADVICE ON OILING ROADS.

### How to Oil, when to Oil, and How Much Oil to Apply.

**Synopsis of an Excellent Article Written by James W. Abbott of the Department of Agriculture, Washington, District of Columbia.**

The utility of crude petroleum on public highways was first tested by the supervisors of Los Angeles county in 1898. Six miles were oiled, and from this the practice has grown in favor all over California. More than twenty-five counties use it satisfactorily.

Oil was used primarily to lay dust, but it also prevents the roads from becoming muddy during the rainy season. One treatment lasts through the season. If treated again during the following year, the roads will remain in good condition in this State for two seasons.

Oil is used to not only bind together particles of dust, but also the coarser portions of soil, forming a tough stratum. When the stratum is broken it is repaired until a strong, impervious road is secured. This stratum grows harder and firmer until a first-class road is the result.

Oiling roads is the first consideration toward economy. Oiled roads are impervious to water and will not wash but the expense of construction is money thrown away if the oil is applied to wet soil. It will not adhere, and the ground will become flaky or lumpy, and the oil will not evenly distribute. Where the work is properly done no washing will occur.

Some precautions should be considered. The oiled roads should not be used before ready, as oil and lumps will be picked up by vehicles.

Soil from oiled roads after some months' application produces no stain on clean muslin. Bicycles run better. Oiling gives the roads a seal brown color, easy for eyes. Oil preserves the planking for wooden bridges, affording protection to it from wood and water and vehicles.

The road should be prepared to slope about four inches to every eight feet from the center to the side. The road is then thoroughly wet with a road sprinkler and rolled with a light roller and then

left undisturbed till the water dries, but good results may be obtained otherwise. After the road surface has dried it is well to use a sharp toothed harrow to loosen it to a depth of three inches; this will insure an oil crust three inches in thickness provided the soil will absorb the oil to that depth, which may be determined

by a slight experiment. While the roads are being treated to oil travel must be kept off of them. A special sprinkler must be used. After oiling the roads the soil is stirred. The roads can be used in about two days after treatment. On hard soil, not porous, clay or macadam, the oil is best applied after heating or good results come from the oil heated by the sun after its application on road. For the oil that remains on the surface in this case a coating of sand must be used. The road can thus be built up layer after layer.

Ordinarily for a sixteen-foot roadway between 250 and 400 barrels of oil of forty-two gallons each are required to the mile. Two applications would probably be sufficient for a porous or clayety soil. Upon macadam one coat of oil is enough. After the crust has formed twenty-five barrels to the mile will keep the roads in

repair. As the "stitch in time" is to the needle woman, so is timely repair to the oiled roads.

It is economy to oil the roads. The practice saves wear and tear of horses and vehicles and cost of keeping roads in shape. From the standpoint of health and general comfort oiled roads are a success.

The above is a synopsis of an excellent article written by James W. Abbott for the Department of Agriculture, Washington, D. C.

## ON IRON MOUNTAIN.

**The Use of Wood Entirely Abandoned by Smelting Company.**

The Iron Mountain railroad, operated by the Mountain Copper company and extending from the smelter at Keswick to the mine at Iron mountain, has decided to substitute oil for wood as fuel on

## A NARROW ESCAPE.

**Tank Steamer Whittier Almost Burns Up.**

A fire, which had immense possibilities for destruction of life and property, broke out shortly before eight o'clock Sunday night in the hold near the fire room of the steamer Whittier of the Union Oil company, lying at section two of the sea wall. On board the boat were 10,000 barrels of oil, and had the blaze managed to get beyond its starting point an explosion with dire results to the water front would have followed.

Work by the fire department, whose members went intrepidly into the hold, saved the steamer. The firemen carried their hose down through dense smoke in the hold and worked for more than an hour to extinguish the blaze. It



Tank Steamer "Whittier" Which Came Near Being Destroyed by Fire.

its five locomotives, the change to be made as soon as the present supply of wood is exhausted.

This change closes the use of wood as fuel by the Mountain Copper company. Four years ago it was using 20,000 cords a year. With the locomotives using oil for fuel, it will use no wood at all. This remarkable change has been brought about by the substitution of electrical power furnished by the Northern California Power company for steam, the use of oil for fuel instead of wood in the hot-air blast and at the power houses, and the abandonment of the open-air system of roasting ores, which alone consumed several thousand cords of wood a year.

The change, although made gradually, has thrown a hundred or more men out of employment, who formerly worked chopping wood, driving it down the river and handling it afterward.

is not known exactly how the fire started, but it is presumed that oil leaking from a pipe leading to the furnace was responsible, the oil finding its way into the bilge, where it eventually burned itself out. The damage done is to plates which were warped by the heat and is estimated to be between \$500 and \$1,000.

First Officer Brooks, who was pacing the deck of the steamer George Loomis, near by, saw the smoke issuing from the hold and hastily telephoned to the fire department. Becoming frightened, he ran to Kearny and Bay streets and turned in an alarm. The Whittier, which is in command of Captain McDonald, was due to sail Tuesday to Honolulu, loaded with oil. The delay in sailing was due to a wait for a tow. The steamer is less than a year old and her regular run is between Ventura and Oahu.



## A CASE OF FREEZE OUT.

### Why the Great \$1,000,000 Refinery of Colorado was a Failure.

#### Between Exorbitant Rates Charged by the Railroad, and the Competition of the Standard, an Enterprize of Promise Meets Absolute Failure.

John McKay returned to Titusville last week from Overton, Colorado, where he had been superintending the dismantling and shipping to various of his patrons the refining plant he bought at Overton a few months ago from Howard Eels, trustee for the bondholders of the Rocky Mountain Oil company. In answer to an inquiry from a Petroleum Gazette representative as to what he found new in oil activities in Colorado, Mr. McKay said there is much more wild-catting being done in various parts of the State than is generally known, a considerable amount of it being done in a manner which would suggest that those who are behind it are more interested at present in obtaining the information to be had only by such tests, and in keeping the information discreetly to themselves, than in furthering any immediate booms in the regions they are testing. While appreciating that predictions as to oil production are risky and quite apt to prove not prophetic, Mr. McKay does not object to going on record as believing that Colorado's richest oil fields are yet to be developed and that ultimately the state will be one of the leaders in the production of high grade oil.

There is interesting history associated with the now defunct refinery at Overton, which originally cost in the neighborhood of \$1,000,000 and was up to date in every particular, including wax and ice plants and all the equipments of a modern establishment of the kind. The owners—the Rocky Mountain Oil company, composed mainly of Cleveland, O., men whose interest and capital had been enlisted in the undertaking by Major Conon,—had about 2,000 acres of territory in the Florence field, twenty-eight miles west of Overton, with a pipe-line between the two points and a production of from 1,000 to 1,500 barrels a day. Not only was illuminating oil commanding from 25 to 30 cents a gallon at Pueblo, Colorado Springs, Denver and other points, but there was an inviting market for lubricants and the crude product itself was in excellent demand for fuel at profitable prices. But rich as the possibilities appeared and possessed as the enterprise seemed to

be of all the essential elements of success, it was nevertheless doomed to failure. The chief factor in its defeat is suggested in the reason which prompted its location at Overton instead of at Florence—the same factor which has been more potent than any other in this country in promoting commercial and industrial wrongs and in breeding disrespect for law and order. We refer to injustices imposed by the railroads. At the time of the projection of the refinery the Santa Fe and Denver & Rio Grande railroads, both of which reached Florence, would give no rates which justified the location of the plant there, but by locating at Overton, about thirty miles east of Florence and piping the oil from the Florence field to that point connection could be made with what was then a branch of the Union Pacific but is now a part of the Colorado & Southern railroad. Before work was begun on the refinery, in 1891, what was deemed an iron clad contract was entered into with the Union Pacific for rates and treatment which seemed to assure the refinery a fair deal and a permanent outlet for the products of the plant. The refinery was completed in the latter part of the following year but had only started nicely when the Union Pacific went into the hands of a receiver, abrogating existing contracts. The receiver of the railroad would not continue or renew the contract with the Rocky Mountain Oil company and this practically nullified for the refinery the advantages believed to have been assured through its locating at Overton and securing the contract referred to with the Union Pacific. The conditions thus forced, says the Petroleum Gazette were pleasant for the Standard Oil people in the monopoly they enjoyed of the markets of that region and they proceeded without delay to make the situation more acute for the new enterprise. When the independent refinery began business the price of illuminating oil at the points above noted was from 26 to 28 cents a gallon, but the Standard speedily brought it down to 6 cents a gallon. It did this, too, not with oil from the Florence field, which was in its incipency, but with oil shipped in from the East, mainly of the Lima grade, no doubt, and

from its refinery at Whiting, Ind. The "dear people" swallowed the bait of cut prices as they usually do and paid for it subsequently in higher ones. The Rocky Mountain Oil company continued in the business a couple of years and then went into the hands of a receiver. Later the property was bid in by Howard Eels, as trustee for the bondholders and it was from him that Mr. McKay bought the refining plant in January last. The producing property was also sold by the trustee a couple of months ago to what is known as the United Oil company, which is the chief producing and refining interest in the Florence field, though there is also another well equipped refinery there.

While neither of the refineries at Florence is directly a Standard concern both are indirectly so, inasmuch as their output is handled by the sales branch of the Standard known as the Continental Oil company, with headquarters at Denver. The joint capacity of the refineries is about 50,000 barrels a month and the present production of the field a little more than that. There is considerable independent production in the field which is bought by the refineries, the price paid at present being 90 cents a barrel. The Florence crude is dark green oil, rich in paraffine and is found in

no well defined rock or sand but, like the product at Boulder, is developed in shale. It is found at varying levels, ranging from 1,600 feet to more than twice that depth. The former depth was considered the regular one until recent years, since which time profitable production has been developed with deeper drilling. In addition to its value for refining the oil has a special value for smelting purposes. The wells have good staying qualities, the original well of the United Oil company being still credited with a production of about fifteen barrels a day.

#### Filling the Big Tank.

The work of filling the Southern Pacific Company's big 55,000 barrel tank at Salinas has commenced. The liquid fuel has to be pumped from the oil cars into the tank, and from this it will be pumped into a smaller receptacle, which is now in course of construction. The big tank is on a level with the roadbed, resting on the ground. For this reason it is too low for replenishing the supply on locomotives. Already the piles have been driven for the smaller tank and this will have sufficient elevation to permit the oil to flow easily into the tanks in the rear of the locomotives.

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## CHEAP BUT EFFECTIVE.

### A Home-Made Road Oiler that Gives Good Satisfaction.

Description of one Manufactured in Stanislaus County, that Has Proved a Practical Success, and that Costs Less than \$800.

The Modesto Herald gives the following particulars of a road oiling device originated by the Stanislaus supervisors:

The long delayed oil tank which was ordered in San Francisco by Supervisor Coffee about six weeks ago, has arrived in Modesto, and, having been placed on a wagon, is now ready to be

oil. Two small cranks allow the operator to move the slide bottom so as to close the holes on one side or on both, or to allow but a small amount of oil to pass through the apertures. A faucet in the pipe leading from the tank to the box may be closed so that no oil flows through it.

By the use of a 7½-foot distri-

out.

Two men will be required to run the oiling machine, a driver and a man at the rear to regulate the flow of oil. A seat is placed here so that he can do this without moving from his position. The wagon can be drawn by four horses.

The tank cost \$75 and the wagon \$100. The cost of labor in fitting it up will probably bring the entire cost to \$300. The oiler is outfitted in the latest and most practical manner, and devised by experts for local needs.

The machine lately purchased by Supervisors Lewis and Davison to be used in their districts cost \$750.

The city trustees decided at their last meeting to oil I street from Harry Bates' corner to the railroad track, but they will take

towards McHenry's ranch that was oiled recently is now absolutely dustless. Much heavy traffic has passed over it, but other than a slight depression in the elevation, here and there, there is no effect from the heavy traffic.

#### Petroleum Briquettes.

A very simple process has just been conceived by a Mr. Maestracchi for making petroleum briquettes, very much resembling those made of coal. The modus operandi is as follows: To a liter of petroleum are added 150 grams of soft soap, 150 grams of resin and 300 grams of caustic soda lye wash. This mixture is heated and well shaken. As soon as the mass begins to solidify, which should be in about forty minutes, the progress of the operation should be very carefully watched. To prevent the mixture running over, a little soda should be poured into the vessel, shaking the whole until solidification is complete. When the operation is finished the matter is run into molds to be made into briquettes, which are then placed in a stove for ten or fifteen minutes. It then only remains to allow them to get cold, when they can be used within an hour or two of being manufactured. By the addition of sawdust and sand the briquettes will be more solid and at the same time cheaper. From experiments, said to have been conducted on tugs, the inventor claims it has been clearly shown that these briquettes give three times more heat than ordinary coal, there being, in addition, the advantage of no waste remaining.—Report of Oliver J. D. Hughes, Consul-General, Coburg.

#### Crude Oil in a Firebox.

Fire last week destroyed twenty-five derricks in what is known as the Shoestring district in the Sour Lake oil fields. The flames were started by a man throwing a gallon of crude oil in the firebox to start a fire in a boiler. The loss amounts to probably \$50,000.



Looking Down the Southwestern Portion of the Coalinga Field.

used in the oiling of our streets and roads.

The tank is composed of galvanized iron and has a capacity of eighty-two gallons. It is cylindrical in shape, about three feet in diameter and twenty feet long. It is held from loosening in the seams by a partition of galvanized iron in the center extending from the upper surface to within a foot of the bottom. This tank is securely fastened upon a high-wheeled truck wagon by an iron band which encircles it in the center and is bolted to wooden girders 6x6 inches in dimension, which runs lengthwise of the wagon. Four other timbers, each 8x4 inches in dimension, run crosswise of these, hollowed out to fit the shape of the tank. From the bottom of the rear end of the tank a four-inch pipe—reduced to two inches near the lower end—leads to a wooden box which distributes the oil. This box is 7½ feet long, ten inches wide and eight inches deep, and is fastened just below the bottom of the tank. It is constructed with a double bottom, the upper of which is a slide. Through both bottoms are drilled three rows of inches to allow the escape of the

but the fifteen-foot center of a road may be entirely covered in one trip each way. In case a small portion is left unoled, by moving the slide on one side of the box the oil may run out without any waste. The box is so arranged that by the use of an auger-like contrivance, one end may be raised or lowered if the ground is not level, so that a steady flow of oil flows through-

no definite action until the next meeting, this evening.

Supervisor Coffee intends to oil some more of the McHenry road as soon as he returns from a business trip to San Francisco.

In both these cases, the ground will first be loosened with a disc harrow and then the oil applied. Afterwards the oil will be worked in with a grader.

The stretch of road from town

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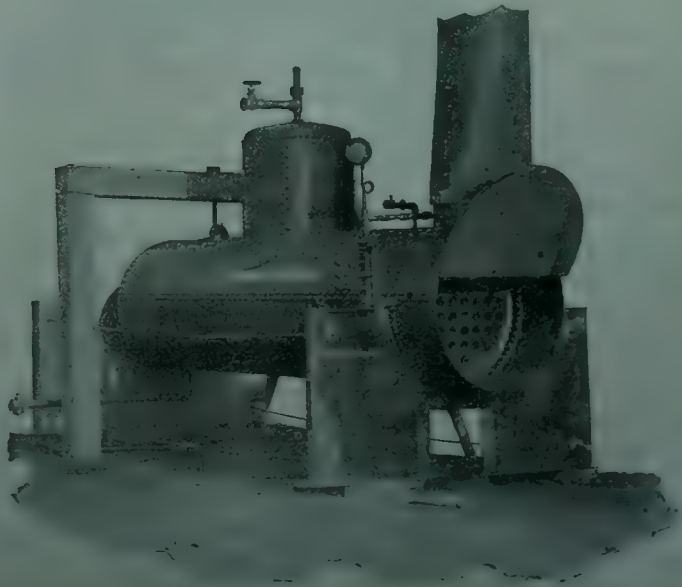
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## OIL GUSHERS IN TEXAS.

**Sour Lake on the Boom—Area Larger Than Spindletop.**

Mr. George L. Craig, general manager for the J. M. Guffey Petroleum company, has just returned from the Texas oil fields and was interviewed by the "Derrick's" representative. During his stay in the Lone Star State, much of the time was spent by Mr. Craig at Sour Lake and he stated that the scenes witnessed there were beyond description. A few months ago the town had a population of about 500, which has now increased to more than 7,000, and is still growing.

Mr. Craig furnished some interesting information relative to the developments at Sour Lake. The development is now about 4,000 feet long, running northeast and southwest, and is some 2,400 feet in width. No dry holes have been

thousands of barrels, running up into the hundreds, have been lost. Over-production has killed the market. Oil is selling at the wells at from 5 to 10 cents per barrel.

The producing area of the Sour Lake pool at this time is larger than Spindletop. The greatest number of the wells are on small lots 20 by 25 feet and the prices paid for some of them are simply beyond belief, ranging from \$1,000 to \$5,000, and he mentioned one instance where the enormous sum of \$15,000 had been paid for a lot 20 by 27 feet.

More storage facilities are needed and the larger companies are bending every energy to supply the increased demand. The J. M. Guffey company has contracted for the erection of nine additional steel tanks at Sour Lake, each with a capacity of 50,000 barrels. Three pays are found in the

has supplanted the stock jobber that once infested Beaumont. Nearly everyone has a lot to sell, some offer farms miles back in the country. Mr. Craig related one incident of the owner of a 5-acre lot several miles out of town. The prospective buyer asked if he, the party offering to sell, would not drive him out and let him take a look at it. He stared at him in amazement and said he had not gone out to look at it when he purchased it.

When asked for the daily production of the Spindletop pool at this time, Mr. Craig stated that he thought it could not exceed 15,000 barrels a day.

## DISTILLATES SPRAY.

**University of California Has Issued an Agricultural Bulletin.**

"Spraying with Distillates" is the title of an agricultural bulletin

applied, one coming in January or February, or just before the flower spurs start, and the other coming in October or November. He admits that these two sprayings may not insure perfectly clean trees, but he claims that such a condition cannot be obtained by spraying unless the treatment is planned wholly with regard to the scale, and not considering the most desirable time with regard to the plant. The two sprayings a year are not only all that is desired from the point of plant resistance, but also reaches the limit of the economic advantage which spraying has over fumigation, for experience has shown that spraying will not be cheaper than fumigation if three or four applications are required.

In regard to the system to be used in applying the wash, Volck



A Section of the Kern River Field That a Few Years Since Was a Barren Waste.

encountered in any direction from the present producing limits and no one knows how much farther the field may be extended. Seventy-five or one hundred wells have been completed and at the present time there are about one hundred drilling. Inside of defined limits there are at this time eighteen wells, each producing from 5,000 to 8,000 barrels a day.

The Sour Lake field, he thought, is producing 50,000 barrels a day, approximately. The J. M. Guffey company, the Texas company and the Southern Pacific railroad are handling in the aggregate about 30,000 barrels a day of the production, and the balance is flowing on the ground. The Texas company has thrown up dikes on its property and has been able to retain more than 100,000 barrels of the oil that would have otherwise flowed into the creek. The whole country is deluged with oil. Many

wells at Sour Lake. The first is reached at a depth of 585 feet, the second at 800 feet and the third at 1030 feet. The most prolific producing formation is the lower pay. The oil in the first pay is of 18 gravity while that found in the lower two is of 23 gravity.

Mr. Craig said that the roads when he left were in an almost impassible condition. Since the 16th of September last there has scarcely a day passed that it did not rain. The charges for hauling, when it is possible to get it done, are fearful to contemplate. To haul a boiler from the Southern Pacific's freight yards to the field, a distance of not more than a mile, is \$150. They make no effort to load the boiler on a wagon. They fasten a chain to it and a sufficient number of teams to the chain and then "snake" it through the mud to its destination.

The land boomer at Sour Lake

just issued by the University of California Experiment station dealing with an extended series of investigations on the effects of spraying fruit trees with oils. Oranges have suffered particularly in past years on account of "spotting," and although friction and fumigation are both responsible for some of this injury the greatest loss has been through injudicious spraying with distillates. Hence the study of the subject with the most searching scientific methods. W. H. Volck of the experiment station entomological staff has been co-operating with the Los Angeles Horticultural commissioners. He still urges that further work with oils be undertaken, in order to determine their effect on plants under carefully determined conditions.

After careful study in a number of cases, Volck offers the suggestion that two annual sprays be

sees many advantages in the overshot sprays, which can kill the greater number of scales and at the same time do less injury to the trees. But spotting is not overcome and the red spider clings to the under side of the leaves, which are not touched in the overshot method. Hence the necessity of combining the two methods of overshot and undershot. While heavier oils have been used, so far as emulsions have been concerned, they are far worse in their general effect on the plant than kerosenes, which Volck recommends as the most satisfactory insecticide of this kind. The orange tree will withstand from 8 to 10 per cent of kerosene, used in ordinary spraying, and 15 per cent in overshot work. These strengths are sufficient to kill young scale and the red spider, although several applications are required to thoroughly clean a tree of most insects.



## THE FINDING OF WATER

**At the Home Well Does Not Affect Value of Coalinga Land.**

The Coalinga "News" has the following sensible article in regard to the Home Oil company, in its last issue:

"Considerable interest will be felt all over the country by the announcement of the fact that the Home Oil company, located here, is pumping a mixture of oil and water (about 20 per cent) from their wells.

"In regards to this matter we would say that the Home and Coalinga Oil companies are the only companies in this field that have tapped this particular sand and produced this quality of light oil. The companies in question have been producing a grade of fine light oil of about 34 degrees gravity for some time.

"Since 1898 both companies have sold immense quantities of oil and all taken from a very small territory. It is only natural to suppose that the sand would eventually cease to yield to such an extent, but according to many oil men, who are competent to judge of such matters, the wells in question will produce oil for some time to come. The history of all oil fields show that in time, wells that were the greatest producers of the numerous fields all through the United States, have gradually yielded less oil until many of the once gushers have gone entirely dry.

"Both the Coalinga and Home companies have paid princely dividends to the owners of stock who bought in the early days, or at the formation of the companies; they could not expect that these wells are going to produce oil forever. The life of all oil fields, as well as gold, coal and copper mines in fact, any mineral deposit, is limited.

"As far as the stock of the companies is concerned, it is still of great value, for the property of both and the wells on it, will yield more or less oil for years. The Coalinga wells, owned by Chancellor & Canfield, are today producing and the company is shipping nearly 4,000 barrels a week, as their reports will show. The Home is also shipping oil and will be producing for a long time to come.

"The water found in this oil is easily disposed of, as it settles to the bottom of the tanks and is drawn off by the means of a tap.

"As far as the Coalinga field is concerned, the decrease in production of the two companies mentioned above, does not affect the value of other property the least bit. These two companies struck a pocket of light oil that has not been found in quantities, by any other company operating in this field. They have simply drained the sand to such an extent that

wells which once flowed 1,500 barrels a day do not at present produce anything near that amount. The territory worked by the Coalinga and Home companies will not cover more than eighty acres of land. About a mile and a half southeast of this property is the California Oil Fields, Ltd., lease with sixteen producing wells, one of which, No. 2, on section 21, is the largest producer in the field today. On the next section to the Limited, (section 28) are located the Hanford, with three producing well; the Twenty-eight with nine producing wells; the Oil City Petroleum with eight producing wells, and the Stockholders with one producing well. In addition to these there are scattered over what is known as the West Side, and laying in a southwest direction from the Home, thirty-six producing wells, the nearest being about two miles and the most distant about seven miles from the north half of section 20, where the Home is located.

"Many of these wells are flowing and are classed with the best in this or any field. Therefore, we say to our readers, do not lose faith in this field. It is bound to be the greatest in the State. Wells are being struck almost daily that prove the field here is good for twenty-five or thirty years to come. In the past month the following wells have been finished, or are enough advanced to determine the value of them as producers: The Wabash, on section 7, No. 1; Esperanza, No. 3; San Francisco Crude, No. 2; K. C., No. 3; California Limited, No. 2 on section 21 and No. 13 on section 27; Twenty-eight, Nos. 8 and 9, and Oil City Petroleum, No. 8. These wells are producing, or will be in a few days, and each one

can be classed better than the average. The field is growing steadily in extent, and hundreds of acres of land, now proven territory, are only awaiting the coming of operators and the sinking of wells to yield great quantities of oil and become dividend payers.

## WORLD'S PRODUCTION.

**What Each Region Produced in Crude Petroleum in 1900.**

The following is a tabular statement of the world's production of petroleum in 1900, prepared by F. H. Oliphant and published in the last annual report of the United States Geological survey (Borneo being the only oil producing area omitted):

State	Barrels of 42 gallons
New York .....	1,300,925
Pennsylvania .....	13,258,202
West Virginia .....	16,195,675
Ohio .....	22,362,730
Indiana .....	4,874,392
California .....	4,099,484
Kentucky and Tenn. ....	29,384
Colorado .....	317,385
Illinois .....	250
Kansas .....	74,714
Texas .....	836,039
Michigan and Ind. Ty. ....	8,074
Wyoming .....	5,450
<b>Total United States</b> .....	<b>63,362,704</b>
Other Countries.	
Russia .....	77,230,561
Canada .....	652,650
Peru (estimated) ....	120,000
Galicia .....	2,346,505
Roumania .....	1,628,535
Germany .....	358,297
Italy (estimated) ....	16,000
Sumatra (estimated) ..	1,520,000
Java (estimated) ....	650,000
India .....	1,078,204
Japan .....	1,933,800
<b>Total</b> .....	<b>150,897,316</b>

## THE HOME PROPERTY.

**Mr. S. Shannon Will Make His Report in a Few Days.**

S. Shannon, of Fresno, and John Hinkle, of San Francisco, returned this week from Coalinga, there they had been to examine the Home Oil company's property. Mr. Hinkle is one of the committee appointed at the recent meeting of the stockholders of that company, to investigate the condition of the company's wells and its production, and Mr. Shannon was requested to, as an experienced oil operator, investigate and give his conclusions in the matter. Mr. Hinkle will, we understand, report that he and Mr. Shannon found that there was not near so large a percentage of water coming out of the wells, with the oil, as had been reported.

Mr. Shannon has returned to Coalinga to still further pursue his investigations. He states that he will not be prepared to make a full statement until today (Saturday), for while the amount of water in the oil has been ascertained, the production of the wells has not, and he returns to the field for that purpose. Owing to a lack of water for the boilers of the pumping plant (there having been a breakdown in the machinery of the company supplying the Home water), all the wells were not being pumped last week, but all of them, with the possible exception of one, were put on the pump last Saturday, and by the time Mr. Shannon reached there this week he could make a thorough investigation of the output of the wells.

The resignation of R. W. Ellis as president and Louis Rosenfeld as a director of the Home Oil company have been accepted and F. P. Cutting has been elected president and J. H. Mallert, Jr., a director to fill the vacancies.



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Published Weekly  
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Endorsed By the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco  
Telephone, Bush 176.

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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

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SATURDAY..... AUGUST 29, 1903

The trouble in the Home Oil company is another illustration of the fact that a certain amount of frankness should characterize the relation between the directors of an oil company and the stockholders.

By "frankness" we mean the issuance of regular statements by the directors to the stockholders, showing the exact condition of the affairs of the company, giving the amount of development work, the amount of oil production, if any, the amount of increase or decrease in production, difficulties attendant on new development work and the difficulties which may have been encountered from water or otherwise in old wells. Statements should also include financial condition of the company, amount of contracts for the sale of oil, etc.

At present there are not a half-dozen companies now operating in the different oil fields of California which issue these statements to stockholders. The lack of these statements is the main cause of dissatisfaction among stockholders.

Boards of directors of oil companies should cease regarding themselves as bodies which should be held aloof from the stockholders and refuse to impart desired information. As a rule, when a company thus refuses to give desired information regarding itself, it can be set down as either fraudulent or badly managed.

The era of prosperity that has been reflected in every industrial channel in the United States in the past six years has caused a general expansion of business. It has not been limited in its scope to any class of trade and it is but natural that the oil industry should have thrived. It is unnatural, however, that it should have grown to its present proportions in a commercial way. Where there were thousands of dollars invested and earned in oil trade five years ago there are now tens of thousands invested and earned. The increase in production has caused the industrial world to marvel. The expansion in every line of business has made a place for this increase. The possibilities of supply seem to be unlimited. The possibilities for demand seem to be equally so. Of course the product has been cheapened in many instances where the output became suddenly so great that it could not be handled by the available facilities for marketing. But these have been the exceptions rather than the rule. The market has maintained a wonderful steadiness, however, considering that the changes in supply and demand have been on so huge a scale.—Bonds and Mortgages.

## DIFFERENT OPINIONS.

### Probable Failure of the Eastern Oil Fields.

There is a decided difference of opinion as regards the probable failure of the Eastern oil fields. Dr. David T. Day, chief of the Division of Mineral Resources of the United States, expresses his opinion on the subject in a recent newspaper article in which he says that there is much needless alarm over the relative runs and shipments and the reported drain of oil stocks. He thinks that the production of oil will be increased to keep pace with the demand, and he gives exhaustive facts and figures in support of this theory.

The Oil City Derrick expresses a contrary opinion. It criticizes severely the statement of Dr. Day, though admitting his high standing as a scientist of established reputation. While Dr. Day says that "we can look with the utmost complacency on the discovery of new fields in Alaska, or Texas, or China, or on the other hand, upon the exhaustion of considerable fields in this country and elsewhere, with the safe assurances that the oil trade will go on just as though nothing had happened," the Derrick refuses to "look with complacency" on the exhaustion of the Pennsylvania oil fields, which it considers to be the beginning of a serious decline in the production of high grade

oil of the world.

The problem that confronts the manufacturer of high grade illuminants and lubricating oils, at the present time, says the Derrick, is how to maintain his output, at present prices, and keep up with the increasing demand. When the time comes, that seems so rapidly approaching, that the European nations will be compelled to cut down their present consumption of American oil, because of greatly increased prices, the home consumption, which of late years has become such an important feature of the trade, may likewise be decreased from the same cause.

Prior to 1886, almost the entire production of the United States was high grade oils that came from the Pennsylvania regions. In 1882 there was a production of over 30,000,000 barrels and the demand, as represented by the pipe-line shipments, was about 22,000,000 barrels. The great Bradford field in McKean county alone was yielding from 75 to 80 per cent of the total production. The output of this field in 1881 was about 26,000,000 and in 1882 nearly 19,000,000 barrels. Production exceeded the consumption, the stocks continued to pile up, and there was an era of low prices. At the present time the states of Pennsylvania and West Virginia combined are yielding less oil than the Bradford field alone was making, twenty-two years ago.

The practical oil operator, who has been on the keen scent for new fields for the past twenty years has learned by his own experience that never in the history of the oil industry were fresh sections of producing territory so scarce or the prospects of their discovery so discouraging. Pennsylvania produced 12,000,000 barrels of oil in 1902; this amount will not be equalled by the developments of 1903, and West Virginia will likewise fail to sustain her record for the past year. The districts of Southeastern Ohio have never exceeded an annual output of 6,000,000 barrels, and nothing extraordinary in the way of an increase in production can be looked for from New York. The simple fact is that the prospects for any increased output of the paraffine oil production of the United States are being gradually narrowed down each succeeding year. At the same time, there has been a constant increase in the demand for all classes of products that are manufactured from the higher grades of petroleum, with no indications of any immediate let-up. The producer of Pennsylvania oil, says the Derrick, is face to face with a very serious problem in spite of the optimistic deductions of the Washington head of the Geological Survey.

## COSTLY CARELESSNESS.

### What One Man Did With a Gallon of Benzine.

In spite of the long and varied record of experiences which should cause them to exercise more caution, people continue to be careless in the use not only of kerosene but of the more volatile petroleum products. This was the case last week with a Philadelphia man, whose experience is related as follows by the "North American" of that city: "Howard Smith started out to hunt fleas yesterday with a squirt gun for a weapon and benzine for ammunition. He blew up his house, burned all his furniture, nearly killed himself, and it is believed exterminated the fleas. Smith was operating on his wife's wedding dress when the explosion came. It is thought that \$13,000 will cover the damage, not including Smith's doctor bill. Smith lived at 618 West Rittenhouse street, Germantown. He is a plumber. Two months ago he married Miss Somers of Twenty-sixth and Brown streets, and took her to live in the Germantown house, which he had furnished at a cost of several thousand dollars. Monday his bride and her mother went to Sea Isle City for a few weeks. They had been complaining about a plague of fleas, which had fallen upon the neighborhood, and Smith promised them that he would have the insects exterminated by the time they returned from the shore. Yesterday morning he got a gallon of benzine and started after the fleas. He sprayed all the rooms and had taken his wife's wedding gown out of a closet to spray it, when the fumes of the benzine came in contact with the flame from a gas jet and an explosion occurred which pushed out the side wall of the house and broke every window in the building together with windows in the adjoining house. Scorched by the flames and dazed by the concussion, Smith ran out into the street, shouting incoherently. He tried to tell a neighbor what had happened, and then he ran on, again yelling and gesticulating. At Crowden's coal yard he fell in a faint. He was revived before noon and the doctor said he was not seriously hurt. The house was so badly wrenched that it will probably be necessary to tear it down altogether. The only thing that escaped demolition was the wedding gown. A. W. Green, owner of the house, places his loss at \$7,000. Smith valued his furniture at \$6,000. It was fully insured."

Crude oil is selling at Russian ports at 7½ to 7¾ copecks per gallon, equal to 3¼ to 3½ cents in American money. Kerosene in wagons is quoted at 5½ cents per gallon (10¼ copecks.)



## DRILLING IN BORNEO.

## Climatic Conditions Make Work Dangerous for White Men.

Clyde Steinberger, a son of H. Steinberger, of Zelenople, who left here for the oil fields of Borneo, July 17, 1902, arrived home from that distant island Monday morning after little more than a year's absence. Those in the party at that time besides Mr. Steinberger were John Kerr and William Reddick, of Oil City; H. P. George and Andy Rape, of Evans City; H. H. Nally, of Corapolis and Richard Smith of McKees Rocks. Of these Messrs. Reddick and George have died, the former in Borneo and the latter in Singapore while en route home. Of the remaining ones Mr. Rape has had attacks of fever while the others have so far en-

three to twenty cents a day, while an expert blacksmith receives thirty-five cents. Foreigners cannot endure it to do too much labor on account of the heat and the great humidity. All labor and transportation is done by natives, a whole army of them being employed on one drilling well. Oil is found at from 90 to 600 feet. The drill never encounters any hard rock and the whole depth is filled with layers of oil sand.

The white man's greatest difficulty is to procure suitable food and to protect himself at night from dampness. The natives are Mohammedans and very superstitious, except that however or wherever they die, they believe it has been their appointed time. While working they always sing and yell in order to keep away the evil one. They all carry

involved in the oiling of roads, and for their information we will state a few facts in connection therewith. The carload of oil used on the roads above referred to was purchased at a cost of \$76. The freight charges on this carload of oil from the Kern oil fields was \$127.35 and the cost of laying the same on the roads was \$50. Thus it will be seen that the actual cost of laying oil on our roads amounts to \$253.35 per carload.—Lemoore Leader.

## Money in Oil.

The contrasts between the present stringency of the money market and the wealth producing power of the country finds no more apt illustration than that of the actual returns to the producers from the production of crude oil, says the Indianapolis

## Petroleum Export for July.

O. P. Austin, chief of the Bureau of Statistics, submits the following statements of the exports of mineral oils from the United States during the month of July, 1903, and during the seven months ending July 31, 1903, to which we add tables giving the quantities exported each month since January, 1901, as also totals and monthly average exports:—

CRUDE OIL.		
	Gallons.	Dollars.
July, 1903	10,918,277	585,921
July, 1902	11,585,066	446,316
Seven months, 1903	66,160,650	3,562,271
Seven months, 1902	80,588,868	3,519,898

	1901.	1902.	1903.
January	10,504,293	11,274,800	8,804,008
February	8,090,026	7,329,424	8,907,616
March	12,230,594	15,051,932	10,205,000
April	11,427,510	8,168,709	5,973,099
May	11,837,546	7,792,232	13,324,666
June	8,786,202	15,054,076	8,450,382
July	10,532,667	11,585,066	10,918,277
August	10,104,803	10,402,477	.....
September	10,921,493	13,200,656	.....
October	7,325,042	13,300,498	.....
November	13,501,548	9,993,493	.....
December	11,458,893	16,570,370	.....

Year	126,025,717	144,065,436	.....
Average	10,577,143	14,905,453	9,737,237

NAPHTHAS.		
	Gallons.	Dollars.
July, 1903	819,401	88,691
July, 1902	503,184	47,918
Seven months, 1903	5,209,099	642,168
Seven months, 1902	11,578,492	780,528

	1901.	1902.	1903.
January	2,897,021	761,751	596,903
February	1,811,310	1,024,326	628,844
March	114,413	2,792,232	326,866
April	2,371,990	1,856,048	1,350,309
May	1,137,983	2,491,358	343,104
June	978,137	2,136,601	1,143,582
July	2,118,722	509,184	819,401
August	1,496,858	1,903,611	.....
September	1,469,815	451,002	.....
October	1,773,342	1,720,923	.....
November	2,444,416	2,188,152	.....
December	1,779,984	688,799	.....

Year	20,715,971	18,539,970	.....
Average	1,726,331	1,544,248	745,585

ILLUMINATING OILS.		
	Gallons.	Dollars.
July, 1903	63,442,330	4,497,871
July, 1902	64,224,024	4,036,585
Seven months, 1903	358,941,093	26,054,235
Seven months, 1902	448,757,169	27,839,731

	1901.	1902.	1903.
January	64,457,332	73,078,811	41,673,849
February	47,768,340	49,250,820	48,053,801
March	50,486,479	61,825,929	43,535,587
April	64,704,100	65,669,123	60,483,240
May	76,330,843	64,987,139	53,080,343
June	68,868,890	69,724,315	54,842,037
July	77,652,234	64,224,023	63,442,330
August	72,864,132	62,208,052	.....
September	80,213,782	67,797,779	.....
October	71,359,374	73,473,314	.....
November	79,474,607	58,314,704	.....
December	74,203,731	66,357,879	.....

Year	817,375,044	765,911,987	.....
Average	68,114,662	63,825,999	52,277,414

LUBRICATING OILS.		
	Gallons.	Dollars.
July, 1903	7,485,965	973,374
July, 1902	7,038,689	949,995
Seven months, 1903	55,085,033	7,142,312
Seven months, 1902	44,348,446	5,994,883

	1901.	1902.	1903.
January	5,647,785	6,041,748	7,004,630
February	5,028,109	5,735,945	8,318,200
March	5,086,587	5,799,492	8,719,311
April	7,086,832	7,449,352	8,972,738
May	6,836,906	6,731,124	8,238,493
June	5,371,694	5,222,810	7,078,344
July	5,179,197	7,485,965	7,058,689
August	5,993,475	7,551,502	.....
September	6,154,065	6,769,866	.....
October	7,449,965	6,993,737	.....
November	6,192,194	6,167,396	.....
December	6,223,369	8,102,162	.....

Year	73,031,177	79,933,109	.....
Average	6,085,931	6,661,092	7,869,299

RESIDUUM.		
	Gallons.	Dollars.
July, 1903	2,799,006	79,580
July, 1902	1,798,434	41,071
Seven months, 1903	4,682,244	124,648
Seven months, 1902	19,295,849	450,015

	1901.	1902.	1903.
January	4,030,320	2,528,820	1,596
February	1,611,882	2,023,644	58,800
March	5,361,846	1,373,708	55,864
April	1,630,146	4,700,919	654,738
May	1,333,290	2,868,714	71,030
June	367,332	3,972,610	91,770
July	1,939,140	1,798,434	2,799,006
August	2,393,214	5,040,801	.....
September	2,616,710	3,606,796	.....
October	1,640,102	3,444,160	.....
November	1,394,442	3,962,278	.....
December	2,433,102	873,086	.....

Year	26,980,616	38,236,974	.....
Average	2,248,385	3,186,414	668,892

TOTAL EXPORTS.		
	Gallons.	Dollars.
July, 1903	83,057,703	6,192,968
July, 1902	85,693,512	5,551,864
Seven months, 1903	499,077,938	37,535,654
Seven months, 1902	604,566,824	38,574,975

	1901.	1902.	1903.
January	85,531,041	93,690,951	58,143,049
February	64,009,667	65,394,168	65,067,261
March	74,485,910	87,432,293	64,232,628
April	87,149,597	87,331,201	77,424,044
May	97,489,567	99,030,987	75,552,750
June	80,371,345	92,011,012	72,012,005
July	97,413,991	85,693,512	75,057,703
August	92,821,632	88,195,443	.....
September	101,402,265	80,006,080	.....
October	90,476,265	80,006,080	.....
November	94,076,297	80,006,080	.....
December	66,190,289	92,502,287	.....

Year	1,065,629,425	1,049,073,470	.....
Average	88,752,452	87,223,800	71,296,991



View of Asiatic Oil Field.

joyed good health.

Mr. Steinberger left Borneo May 28. He was delayed five days at Singapore, one week at Hongkong, China; three days at Yokohama, Japan; two days at Honolulu, and six days at San Francisco, considering which delays remarkably good time was made. The boat in which he came from Hongkong was the Doric of the Occidental-Oriental line, and was loaded to her utmost capacity with tea being brought from China to America.

Mr. Steinberger tells many interesting things about Borneo and his trip to and from that place. The temperature there averages about 95° in the day time, which drops to 60° at night. The natives are half civilized and of small stature and work for from

knives and have frequent quarrels among themselves and among neighboring tribes.

The monsoons of the Indian ocean were encountered going to Borneo and a severe typhoon was passed through on the Pacific ocean on the way home. Mr. Steinberger has brought with him a number of native weapons and other articles of interest.—Zelenople, Pa., News.

## Oiling Lemoore Roads.

A carload of oil has been received by the city trustees and the same has been placed on the road leading south from the winery to the school house and thence east to the termination of the city limits, and we shall soon have better roads in that part of town. The average citizen probably has little conception of the actual cost

Reporter. Last year, when South Lima oil was selling around 80 cents per barrel at the wells, the total returns to the producers of Trenton rock oils was about \$1,300,000 per month, on an aggregate production of about 1,700,000 barrels per month. To day the aggregate returns on a production running close to 2,000,000 barrels per month, at \$1.13 per barrel, is about \$2,250,000 per month, a gain to the producers of nearly a million dollars, or an increase in actual wealth producing power of close to \$12,000,000 per annum.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### COALINGA.

The Roberts Oil company, operating on section 1, spudded in on the 19th on its first well.

The Oil City Petroleum company is rigging up for No. 8 to begin drilling immediately.

The Octave Oil company on section 22 spudded in on the 18th reporting good progress to date.

The Mercantile Crude Oil company on section 6, has begun work on rig No. 3 and expects to spud in by next week. This company is also adding another 1,000-barrel tank to its storage capacity.

The Hanford Oil company has put up two 1,000-barrel tanks and has been connected with the P. C. O. line. Oil City Petroleum company has also had its tanks connected with the P. C. O. company line.

R. J. King bought the E½ of the NE¼ of section 30, 20-15 from J. E. Viney. This land until recently belonged to Mr. Perry Phillips from whom Mr. King purchased 160 acres the early part of the year.

Mr. James King of Fresno assumed his duties as successor to Mr. H. H. Brix, general manager of the Coalinga Consolidated Water company. Mr. Brix leaves for Fresno where he will make his home in the future.

Mr. C. N. Paine, general manager of the Standard Oil company transportation department, with office at Oil City, Pa., spent two days in this field looking over the company's operations. He was accompanied by Messrs. Towl & Page.

The R. H. Herron company, one of the local supply houses is removing to its new store in May's brick block. The location will be more convenient for the oil men, and will give the company a much more desirable store than in its old quarters.

The Esperanza Oil and Gas company are making preparation to begin rigging up for well No. 4. Its No. 3 well that has recently been finished is increasing its production leaving little doubt but that it will ultimately equal in its output the other two wells.

Twenty-eight oil company finished its No. 9 well at nearly 1,200 feet and promises to become one of the best producing wells in this field. At the rate that this company has been putting down wells it is destined to become one of the largest producing companies in the State.

Section Seven Oil company's well No. 1 was perforated last Saturday and ever since its perforation she is flowing spasmodically often throwing a stream of oil over the derrick. This well has a depth of a little over 1,200 feet with over sixty feet of oil sand. From the way this well has been flowing it is estimated that it will produce in the neighborhood of 500 barrels per day of oil similar to that of the Esperanza and Penn-Coalinga No. 1.

### COLUSA.

After only four days drilling in well No. 2, Van Gilt lease, a small flow of amber-colored oil was struck at seventy feet by the Williams Oil company.

### HALF MOON BAY.

The Tesla Oil company is making fair progress upon their property just east of Half Moon Bay.

The High Gravity Oil company had their cable break and have had a fishing

job for almost four weeks.

The Guiberson company are drilling their seventh well and intend putting down several shallow wells. They made a depth of 275 feet the first five days.

The Paxton company will resume work early in September, they having been closed down for about six weeks waiting for pipe. There is now to exceed 200 feet of 52 gravity oil in the well.

J. E. Kerr of San Francisco, who has drilled a number of wells at Half Moon Bay, spent days on the property last week and has begun the erection of another derrick and intends drilling several shallow wells from which it is known fair production can be obtained.

The Wisconsin company has been at work for about four weeks in very bad caving and heaving sand formations trying to lower their six-inch pipe. They have now overcome their difficulties and are drilling at the rate of twenty to forty feet per day. The well the first of the week was 1,400 feet deep.

### KERN

The Pittsburg Oil company has declared a dividend of 2½ cents per share, amounting to \$6,000, payable September 1st.

The Naught Five has assigned to the Kopje a lease from the latter to L. H. Mitchell for the N½ of the N½ of SW¼ of the NW¼ of section 25, 28-27.

The Standard Oil company is erecting a number of small tanks at the various pumping stations on the pipe-line. A crew is at work at Mendota and the station just beyond.

A deed has been filed with the county recorder from B. M. Berry to the Seanta Oil company the following property, the S½ of the SW¼ of 2, 28-27, the SW¼ of 22, 28-28, the NW¼ of 12, 29-28 and the S½ of 18, 31-23. All the property is located on the extreme outer edges of the Kern River field and the consideration named is nominal.

The Thirty-four Oil and Fuel has filed a deed to the Reed transferring to the latter the W½ of the W½ of section 34, the W½ of the SE¼ of section 34, the SW¼ of 28, 28-28 and the E½ of section 14, 29 28 at Kern River. The consideration is \$17,000. A lease for fifteen years on the same property with option of purchase. This lease dates from September 2, 1899, and the final transfer is the outcome of the option given.

A message received from Sunset says that the Dayton, whose property is on 9, 32-23 last week struck the third oil strata with very promising indications. The property is located in the outer portion of the field near Midway, just north of the Inter Nos and close to the Chancellor & Canfield and the Midway of Oregon. It is about half a mile outside of the hitherto proven territory and the discovery is therefore of great importance as it shows the oil belt to be about a mile wide at this point. It is close to the route to be followed by the Jewett & Blodgett pipe-line. The oil was struck at a depth of 1,470 feet.

R. W. A. Jameson, who is the vice-president and manager of the Lockehaven Oil company, is at Bakersfield from Pennsylvania to arrange for active operations in the Midway district. The company has a valuable tract of twenty acres right in the heart of the Midway field. The Altoona is just to the north, and the Spellacy property is

south. The land may therefore be said to be proven territory, and it is the intention of the company to develop the property fully. Fourteen wells will be sunk, and the work will be begun some time in October. There are two pipelines on the property and the question of transportation for the production is therefore solved. The company is made up of Pennsylvania men, most of them residing in Altoona, and the officers are as follows: W. H. Slepp, president; R. W. A. Jameson, vice-president and general manager; J. F. Kaufman, secretary; O. L. Seward, treasurer.

The Kopje, one of the companies organized several years ago by the Waterman brothers and others interested in several of the large companies, will hold an annual meeting of the stockholders at the office of Attorney D. M. Adams in the Conklin building in Bakersfield on Wednesday, September 2nd. The company, it is reported, is about to resume operations on its property on 25, 28-27 at Kern River, which has been leased for several years to the Naught Five. The latter has surrendered its lease and the record was filed yesterday. The property of the company is located adjoining the lands of the Falcom, Kern Oil and Development and Provident, and is near those of the Chicago Crude and Green Whittier. It is on the outskirts of the belt occupied by most of the larger companies, but there are good producing wells close to it and oil has been found, so that it is considered good proven property—Californian.

The Associated have six crews at work in the Kern River field all drilling on what is known as the Central Point property. They have completed twelve wells on this property within the past sixty days and between now and the first of October expect to drill fifteen more, which will complete the drilling on this lease. They are also constructing a boiler plant on this property, consisting of four 70 horsepower boilers and a new boiler-house of galvanized iron. Have just completed the second boiler plant consisting of six 70 horsepower boilers on what is known as the San Joaquin lease. The property of this company is being put in first-class condition. Large new sump holes are being dug to conserve the oil with the least evaporation, steam pipes extended from the new boiler-houses to each well, and arrangements being made to pipe the oil from the sump holes direct to tanks instead of conveying it in open ditches as heretofore. The company's product is rapidly increasing. While sixty days ago their shipments and production were about equal they are now producing 2,000 barrels per day in excess of shipments, which they are running into storage tanks. They expect that the new wells coming in will enable them to store at least 1,000,000 barrels of oil before January 1st next, which they desire to carry as a reserve.

### MENDOCINO.

The well of the Ukiah Oil Development company is down 700 feet and indications of oil are plentiful.

### SANTA MARIA.

The Loma company which brought in a gusher near by recently, is putting up tanks.

Wm. Logan is now sinking a well for the Los Alamos Oil company and is down about 500 feet.

The Union Oil company, which recently struck a fine well back of Lompoc is planning to put in a pipe-line from the summit of the Santa Rita hills to the beach, a distance of fifteen miles.

The Southern Pacific oil well near Casmalia is being sunk rapidly with the engine going night and day. Manager young expects to encounter liquid as-

phaltum and is confident that with his special machinery he can pierce that obstruction and strike oil.

The Union Oil company has the three wells in process of boring down about 2,000 feet. They are expected to come in between this depth and 2,500 feet which, with no hitch in the work should require less than two weeks. Much depends on the success attending this work as to value of contiguous territory. Should all come in as now thought quite probable, great value will attach to contiguous lands and sections remote from this section on the coast should and will probably be measurably affected.

Work had to be discontinued on Pinal well No. 1 which spouted last week, until the boiler could be moved to a safe distance on account of danger of igniting the spouting oil. This well, which has been drilled to the first oil sand for some months, is now in the second sand and is in the same formation as the big spouter No. 3. It is 1,800 feet from No. 3 and is on much higher ground. It is presumed that the oil sand follows the surface of the ground, but even then, the wells being always of necessity drilled vertically, the distance to the sand is much greater, as the formation is pierced at an oblique angle. Pinal No. 4 is drilling below No. 3 and No. 2 which is farthest up the hill will eventually be sunk to the lower or gusher sand.

The Pinal Oil company expects to have all connections on the new pipeline completed this week and if the test proves satisfactory the oil will be put through it at once. Well No. 1 was deepened until the second sand was encountered and in consequence the output of the well has been greatly increased. When the sand was reached the well spouted oil to such an extent that there was danger of fire from the nearby boiler and therefore the well had to be capped. The boiler has been moved a safe distance from the well and there is now no longer any danger of the gas becoming ignited. Work on deepening well No. 2 was begun today and will be pushed as rapidly as possible until the second sand is reached. Drilling on No. 4 commenced this week.

### SOLANO.

The work of oiling the roads in this part of Silveyville township has begun. Supervisor W. H. Payne has placed the matter in charge of John McDermott and the work of putting the plant in shape for the reception of the oil is progressing. Ten carloads of oil are to be put upon the roads in this section and it is proposed to do the work well and after the most approved methods.

### WASHINGTON.

While drilling a well August 23rd, six miles from Whatcom, workmen struck natural gas, at a depth of seventy-two feet. Their object was to augment the water supply of the shingle mill. At the depth named an intense bubbling occurred at the bottom of the well, which the workmen took for water. While John McCush and H. T. Jones were bending over the opening, another man lighted his pipe and threw the match into the well. Instantly there was an explosion and a sheet of flame burst from the well. Jones and McCush were knocked insensible, it being five minutes before they recovered consciousness. McCush was burned and his clothes scorched so that they crumbled when touched. He is in bed from his injuries. The flames shot twenty feet into the air, and the workmen spent two hours getting the opening closed so they could quench the blaze. The discovery was made near the old Glen Echo coal mine, which has not been worked because the coal was of poor



quality. Efforts will be made to discover if natural gas exists in paying quantities. Indications of oil and gas have been observed in the vicinity of Whatcom for years.

#### WYOMING.

Oil land is steady and commands high prices for choice sections.

The Michigan-Wyoming has received its packer and drilling was resumed Thursday. They are now down over 1,200 feet and we expect something good from this end of the field in the near future.

The Evanston Oil Exchange has collected a fine exhibit of oil from the various wells which they have in their office in the Beckwith bank building. They are kept busy answering inquiries and sending out literature relative to the field.

C. R. Shaw and E. J. Watters, president and general manager of the Idaho-Wyoming passed through the Spring Valley field the first of the week looking for a favorable location to drill their second well. It is probable the company will do some drilling north of Spring Valley the coming season.

Mr. C. O. Richardson of the Standard Reserve has purchased the Crig rig and is moving it on the SE $\frac{1}{4}$  section 12. A good force of men are rapidly getting things into readiness and Mr. Richardson says they will be running two strings of tools by the 1st of September. They intend to complete three wells by the time snow flies.

John Axford, president of the Western Mining and Development company, and C. Haney, one of the stockholders, have been in town the past week. Mr. Axford says they will put down two wells this fall if satisfactory arrangements can be made to increase their land holdings. They drilled one well near Hilliard last season but had to abandon it on account of a fishing job they could not overcome.

A noticeable inactivity exists on the part of the Bettys Oil and Development company. They have now been shut down for nearly two months waiting for casing. They got a good showing of oil at 500 feet and everybody is anxious to see the well go down. It is being strongly hinted that Mr. Bettys is after more land in the vicinity. They have already commenced assessment work on their holdings.

A. Butler, president of the American Consolidated, arrived here from San Francisco Wednesday and Thursday morning drove out to the property of the company. They are building a large camp near the southeast corner of section 14 which will provide ample accommodation for the large force of men employed. They expect to bring in their No. 3 well on section 14 at any hour and their No. 1 well on section 23 is rapidly nearing the oil bearing strata. Several sets of rig timbers are on the road for this company.

Unusual activity has marked the progress of development in the Uinta oil field the past week. Two strikes were made, one in the third sand on section 10, 14-118; the other in the first sand on section 22, 15-118. The strike on section 10 makes three good producing sands passed through in drilling this well and is doubtless one of the best wells in the field. The strike on 22 was in the first sand and did not amount to much more than to demonstrate that they are drilling in the right spot and to assure a good flow from the second or third sands. No. 1 and 2 wells close by are goods producers. Altogether twelve 1,000-barrel tanks have arrived for the Atlantic & Pacific company which are being set up on the flat on section 26. A greater number of tanks have been ordered but are slow in arriving.

#### Wyoming Oil Fields.

The continued exploration of the Wyoming field may yet lead to the discovery of extensive deposits of valuable oil, says the Denver Republican. The existence of oil in comparatively small quantities has been established beyond question, but no discoveries of a sensational nature have been made.

The faith of capitalists and others in the resources of the country is shown by the fact that wells continue to be sunk, notwithstanding the decline in the oil excitement which made everybody talk about oil and sent many enterprises into the field a few years ago.

It is sticking to a matter of this kind which leads to success if there is anything of more than ordinary value to be discovered. In Colorado the search for oil in new fields has been almost en-

ent for the Tidewater.

The change will take place in a month or six weeks. The Tidewater will establish a pump station at Honeoye and lay a four-inch line to Roulette, Pa., a distance of eighteen miles, where connection will be made with the Tidewater's six-inch line, which runs to the seaboard.

The transfer includes the lines, pump stations, tankage and machinery in this field. So far as the employees are concerned no definite conclusions have been reached, but it is not anticipated that many changes will be made. Mr. Calvert will be the superintendent and this field will be annexed to the Bradford field, so far as overseeing the work is concerned. Purchasing offices will be maintained at Bolivar and Wellsville.—Bolivar Breeze.

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greater source of wealth to the State than her gold mines, and as an economic factor, will exceed in value all her other natural products. It places California on the same fuel basis as Pennsylvania as regards manufactures, and supplies the foundation stone for untold wealth in the future."

Mr. Boyle, who was president of the International League of Press Clubs in 1898, visited California with that organization eleven years ago. The immense progress made by the State and city since has aroused his warmest enthusiasm.

#### Oil in Railroad Shops.

It is expected that by September 1st oil will be used for fuel in every department of the railroad shops in Sacramento. Eleven 6,500-gallon distributing tanks are in place, and pipes are being laid and oil-burning furnaces built in the various departments. The dis-



View of Los Angeles City Field. Residence Section Invaded by Tanks and Derricks.

tirely abandoned, although when the excitement was running high there were many persons who believed that wonderful discoveries would be made. In Wyoming, on the other hand, the search is kept up, and every now and then reports are received of discoveries. So long as this work continues the hope of valuable finds will be kept alive.

It would add enormously to the wealth of Wyoming if extensive deposits of good oil should be discovered, and in this view every citizen of the State has reason to encourage the search.

#### Pipe-Line Change.

It has been definitely settled that the National Transit company is to turn over its business in the Alleghany field to the Tidewater pipe-line company. This announcement was made authoritatively this morning by John P. Calvert, of Bradford, superintend-

#### California Leads the World

Among the distinguished visitors in the Pennsylvania delegation to the Grand Army of the Republic Encampment was Patrick C. Boyle, proprietor of the "Oil City Derrick," says the "Chronicle."

Back in the seventies, when Criswell, the funny man of the "Derrick," was supplying mirth to the nation, Mr. Boyle was accumulating oil knowledge. Hence, it comes about that he is one of the best authorities on mineral oil in the country. Referring to California's phenomenal oil output, he said:

"California to day is the greatest oil field on earth. Its output at present, including by-products, is equal to that of Pennsylvania and West Virginia combined, and with the supply now in sight, it will soon be producing as much as all the rest of the United States.

"It will prove in time to be a

tributing tanks will be supplied from the two 55,000-barrel tanks that were put up some time ago, and a complete system of oil pumps is being installed. Coal, as a motive-power producer has almost seen its day in the Sacramento shops, and it is expected that a great saving will be made. Not only is the oil cheaper than coal, but the cost of handling the coal and disposing of the ashes will also be eliminated, and the heat produced by oil can be regulated so as not to injure the furnace.—Sacramento Union.

#### Eastern Oil Statistics.

The following table exhibits the stock of all pipe lines on hand at the close of each month in 1900, 1901, 1902 and 1903:

	1900	1901	1902	1903
Jan. ....	13,104,500	12,956,099	8,965,706	5,546,388
Feb. ....	12,875,241	12,880,608	8,880,897	5,639,351
March ..	12,026,486	12,865,464	8,828,230	5,560,082
April ....	13,063,258	12,705,315	7,996,776	5,646,195
May ....	13,335,536	12,579,058	7,999,734	5,547,229
June ....	13,459,592	12,466,054	7,108,844	5,566,926
July ....	13,729,098	12,099,866	7,156,940	5,553,525



## PASADENA STREETS.

Kept in Good Condition by the Use of Oil.

Now that the subject of oiled streets and roads is under discussion throughout the Pacific coast, the following from the Pasadena "Star" concerning the experience of that city in the use of oil on its streets is of interest.

That the application of crude petroleum to our highways results in greater improvement for the least cost of anything yet suggested, is conceded. The problem is, how best to prepare the road before the oil is applied, and what should be done as a finishing touch after the application is made. The Star says:

"Much interest has centered recently upon the proposal to apply oil to the city's residence streets, mainly to lay the dust once and for all, so that economy may be effected in the street-sprinkling department and better satisfaction given the residents.

At the present time the opportunity is given for citizens to inspect these methods of applying oil to the public streets, all within the Pasadena city limits, though not one of them can be said to be ideal.

It was intended that South Pasadena avenue between California street and Bellefontaine was to be an ideal street. The property owners took the matter into their own hands and had the street widened, graded, curbed, guttered and sidewalked. Then they sought to make a specimen road with the use of oil and decomposed granite. Without question they are to have a very fine road when all is done, but an unfortunate slip was made in the execution of the plans. The oil was applied before the street had been given a perfect crown and before the granite had been properly rolled out and topped off. E. H. Lockwood, who has but recently returned from a trip in which he made an exhaustive study of oiled roads, has now taken the matter in hand and the result will be watched with interest.

From the present stage of the work, however, it is apparent that the residents upon the street will not be able to track the crude oil from the street in upon their parlor carpets.

Out on Lincoln avenue, from North Range Grove avenue to the city line, the street was oiled last summer and the result gave general satisfaction. So much satisfaction, indeed, that the residents this year petitioned for a fresh application of the petroleum. This work was done under the direct supervision of the street superintendent, C. C. Brown, and under his orders. The loose material was first scraped off the

street, then the oil was applied and finally a thin layer of sand was spread upon the surface.

The second day after the oil was applied it was possible to ride a bicycle the full length of the avenue without spattering up a trace of the oil.

"J. R. C.," in the Star a few nights ago indignantly related how the street department had treated Adella avenue between Walnut street and Villa. There the street had not been scraped or swept, but the oil dumped down upon the dust and the street apparently abandoned to traffic.

The conditions were certainly as bad for a time as they were represented, but subsequently the department sprinkled some sand upon the oil and to-day the street is reported in a fairly satisfactory condition. According to the mayor, the city engineer and the street superintendent, the ideal way to oil a street may thus be briefly stated: To scrape off the top, roll it until the marks of the steam roller will no longer appear, apply the oil and a top coating of sand and later roll again, filling up again dip holes that may appear.

But that is relatively a very expensive method—too expensive for the city to undertake at the general expense over any considerable territory. But it is held that the mere application of the oil, once the oil is permitted to sink into the soil, will prove far superior to the visit of a watering cart once a day.

The suggestion was made to the Star this morning that all convenience from the fresh oil might be avoided by closing a block absolutely to traffic for a few days as would be done during any other street work.

## New Kansas Refinery.

Humboldt, Kansas, is to have an oil refinery, says the Union. C. D. Webster, well known to most of our people, who is manager of the Penn Oil Producing company, is the man who will put in and operate the refinery. He has had twenty-seven years' experience in the business. He has purchased the eight or ten-acre tract of land of J. W. Hammi, west of the river, and north of Riverside park, including the buildings thereon—the ice house and saw mill, and has commenced work. The machinery has been ordered and work will be pushed to have the refinery going as soon as possible. It will be of 250-barrel capacity to start with, and will increase as fast as possible. Ten to twelve men will be required to operate it, and as the plant increases so will the working force. There will be no trouble to get all the oil he can handle, as the plant will be surrounded by oil wells.

## THE P. C. O. COMPANY.

What it is Accomplishing for the Coalinga Oil Field.

The entrance of a branch pipeline, connecting Coalinga with the main line of the Pacific Coast Oil company, as the Pacific Coast branch of the Standard is called, has done more towards putting this field on a solid basis than any movement made here since oil was first discovered.

There never was any doubt in the minds of people, competent to judge, in regards to the future of this field, but the entrance of the P. C. O. assures us of a ready market for our product, and to-day we are classed as the coming oil field of California. No matter how great our product might be, without facilities for getting the oil to market after it is brought above ground, it is of no great value. At the present time the P. C. O. company has contracts for oil in all parts of the field and are ready to contract for more.

This company, says the Coalinga News is making all possible haste in getting their different stations throughout the field in shape to handle all the oil produced that they may contract for. They are building houses for the accommodation of their employees on sections 6 and 21, they have built a branch line to the West Side, one to section 27, for the California Limited company, and will build one to section 28 for the Hanford and Oil City Petroleum companies. Each of these lines at 27 and 28 will be connected with a pumping station, and the oil from the local companies mentioned above will be pumped direct from each station to the large tanks on the hill that connect with the main line at Mendota. At each of these stations (27 and 28) a 3,000-barrel tank, and on section 21 a third, 35,000-barrel tank, will be constructed as soon as the material for them arrives from the East. At Mendota two more 35,000 barrel tanks will be constructed, the material for one of these tanks is now on the ground and work of building will begin at once. The material for the other is on its way from the East.

## Oil in Ohio.

The Toledo Times' monthly oil report says that during July in northwestern Ohio, 388 new wells were completed with an aggregate daily production of 4,416 barrels. Twenty-four dry holes were struck. This is a decrease over June of 14 in number and 583 barrels in production.

WANTED—To rent or buy Portable Drilling Machine, Star preferred, capacity 750 feet or more. Also 400 feet 7½-inch casing. Address, with full particulars, Box L, Pacific Oil Reporter.

## NEW METHOD OF OILING.

Suggestions for Those Oiling Streets to Consider.

P. B. Phillips and his brother, H. Phillips, are both old road makers, and the former took the contract to oil the streets of Bakersfield and Kern, says the Modesto "News." He recently completed the oiling of Baker street in Kern City and in the oiling of that street used a different method than usual. He used about one-third more oil than heretofore. He then, with the aid of spring-tooth harrows, worked the oil into the ground. Next, with the use of a common buck scraper, he drew the dust and dirt from the edge of the street toward the center, thus covering the oiled part with a layer of dirt three inches thick.

This has so mingled with the oil that it forms asphaltum and the street thus treated is in excellent condition. Instead of requiring oiling soon again, it needs only ordinary care to preserve it in good shape for ten years. This is more than merely settling the dust; it is creating a good road at less expense than the present system of oiling the streets for the purpose of allaying the dust only.

A man with a buck-scraper and one horse, say at a cost of \$3 per day, can, under ordinary circumstances, give the additional treatment above mentioned to several blocks a day. And at the same time a gutter is being made on each side of the street, and the road is being made in the center which cannot be cut with the wheels of a wagon and which with use will harden and improve.

This is better than the more frequent applications of oil which is allowed to remain exposed to the surface, thus giving it an opportunity to be cut by passing vehicles, and worked into a fine dust, which finally blows away. The dust indeed is laid for a period, but the best road is not secured. The expense of the good road is no greater in the long run, than the expense of mere sprinkling, and thus securing a fairly good road.

## No More Straw.

Supervisor Twaddle has just finished strawing a piece of road in his district. This will be the last strawing he will do for some time at least, and hereafter he will resort to oiling, as he believes that to be the only means of obtaining good, permanent roads. Mr. Twaddle's idea is to put on a thin coating for the first application and cover it with sand, so that it will become thoroughly mixed, and the second time over to give it a heavy application, making a good, firm, dustless roadbed. He has already oiled a good stretch of road over in the Exeter neighborhood, and is well pleased with the results.—Tulare Register.



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U. M. THOMAS, Manager

318 PINE STREET

SAN FRANCISCO, CAL.



**Faith in Kansas.**

The Standard Oil company evidently has great faith in the Kansas oil field. It is now enlarging its Kansas refinery from a 1,000-barrels per day plant to a 4,000-barrels per day plant. In addition it is building as fast as men can do the work, a \$1,000,000-dollar pipe-line through the Kansas oil field to the Bartlesville field. This immense investment by the Standard oil people gives confidence to the oil operators and new companies are getting to work every week developing new oil territory.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, August 26th:

CARIBOU.	
150 at 75.....	\$ 112 50
CHICAGO CRUDE.	
1,000 at 19.....	190 00
CLAIRMONT.	
390 at 24.....	93 60
900 at 25.....	225 00
ESPERANZA.	
500 at 1 10.....	550 00
FULTON.	
100 at 2 80.....	280 00
HANFORD.	
1 at 130 00.....	130 00
1 at 134 00.....	134 00
10 at 135 00.....	1,350 00
HOME OIL.	
450 at 1 40.....	630 00
200 at 1 37½.....	375 00
2,750 at 1 35.....	3762 50
100 at 1 35 (S 90).....	135 00
200 at 1 32½.....	265 00
375 at 1 30.....	457 50
200 at 1 25.....	250 00
300 at 1 20.....	360 00
2,050 at 1 17½.....	2,408 75
700 at 1 17½ (S 30).....	822 50
100 at 1 17½ (S 90).....	117 50
1,000 at 1 15.....	1,150 00
600 at 1 12½.....	675 00
100 at 1 10 (S 50).....	110 00
100 at 1 10 (S 90).....	110 00
INDEPENDENCE.	
2,905 at 17.....	493 85
1,000 at 17 (S 30).....	170 00
1,000 at 18 (S 15).....	180 00
JUNCTION.	
846 at 2 1.....	769 20
KERN RIVER OIL.	
10 at 1 1 50.....	115 00
LION.	
2,000 at 03.....	60 00
1,000 at 04.....	40 00
MONARCH.	
600 at 52.....	362 00
400 at 53.....	212 00
MONTE CRISTO.	
100 at 65.....	65 00
100 at 66.....	66 00
100 at 67.....	67 00
1,000 at 70.....	700 00
1,500 at 75.....	1,125 00
OCCIDENTAL OIL.	
4,125 at 18.....	742 50
OIL CITY PETROLEUM.	
4,400 at 29.....	1,276 00
5,100 at 30.....	1,530 00
REED CRUDE.	
1,100 at 41.....	451 00
500 at 42.....	210 00
SAN JOAQUIN.	
1 at 5 50.....	5 50
SOVEREIGN.	
100 at 38.....	38 00
100 at 39.....	39 00
STERLING.	
10 at 2 75.....	27 50
100 at 3 00 (B 90).....	300 00
SUPERIOR.	
1,500 at 06.....	90 00
TOLTEC.	
200 at 20.....	40 00
45,074 Shares	Amount \$23,868.40

**NORTH SHORE R. R. CO.**

30 at 5 00.....	150 00
60 at 10 00.....	600 00

90 Shares

Amount, \$750

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		
Apollo.....		
Asso. Oil Co Stk. Tr.		
Certificates.....	.24	.25
Aztec.....		.90
Bay City.....		.10
Bear Flag.....		
California Standard.....		
Caribou.....	.75	.80
Central Point Con.....		.85
Chicago Crude.....	.19	.20
Clairemont.....	.22	
Esperanza.....	1.10	
Fauna.....		
Four.....	.68	
Fulton.....		2.80
Giant.....		.25
Hanford.....	131.00	135.00
Home.....	1.17½	1.20
Homestake.....		
Imperial.....		
Independence.....	.17	.18
Junction.....		
Kern.....		5.25
Kern River.....	11.50	14.00
Lion.....		.02
Monarch of Arizona.....	.51	.52
Maricopa.....		
McKittrick.....		
Monte Cristo.....	.66	
Nevada.....		
Occidental of West Va.....	.17	
Oil City Petroleum.....	.28	.29
Peerless.....	15.00	
Petroleum Center.....		
Pittsburg.....		
Piedmont.....		
Reed Crude.....	.41	.42
S. F. & McKittrick.....	2.65	
San Joaquin O. & D.....	5.50	
Senator.....		
Shamrock.....		
Sovereign.....	.37	.39
Sterling.....	2.80	
Superior.....	.06	.08
Thirty-three.....		
Toltec.....	.20	.21
Twenty-eight.....		4.40
Union.....		
United Petroleum.....		
West Shore.....		
Western Petroleum.....		
Wolverine.....		.55

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<b>9:30</b>	A. M.—"THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 7:10 p. m.
<b>9:30</b>	A. M.—"VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
<b>4:00</b>	P. M.—"STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
<b>8:00</b>	P. M.—"OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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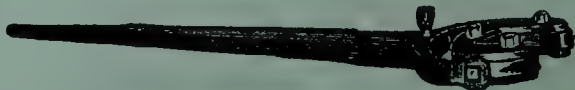
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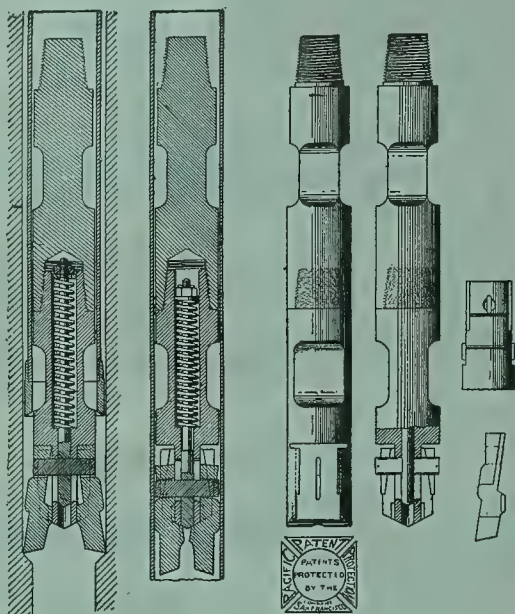
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Vol. 4. No. 44.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 5, 1903.

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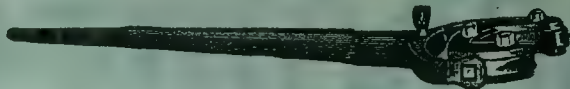


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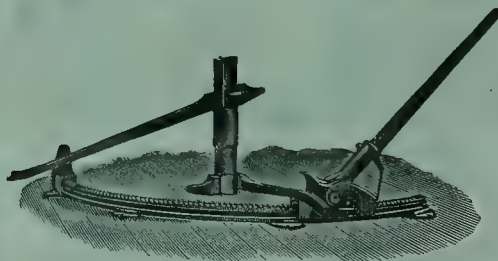


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# PACIFIC OIL REPORTER

VOL. 4. No. 44.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 5, 1903.

PRICE, TEN CENTS.

## ROTTEN HOME OIL.

### Facts Coming to Light That Have Been Carefully Concealed.

#### The Company Now Owes Mrs. Hearst 44-000 Barrels of Oil For Which It Has Been Paid and the Money Expended in Dividends.

The more affairs of the Home Oil company are examined into the worse they look. From \$3 to 60 cents represents a big depreciation in value, yet this is what the Home stock has shown since the trouble began.

At first the trouble was charged to a falling off in production and to some of the wells being flooded with water. The expert appointed by a committee of stockholders to examine the property has submitted his report which does not show such a bad condition as first reports would seem to indicate. Mr. Shannon says the wells are making from 280 to 285 barrels a day and that only one well shows water. Mr. W. A. Gray, the former superintendent, who knows more about the property than any other man, says that there is good territory for more wells and that the present wells are good for several years to come. But these reports do not seem to allay the suspicions that there has been rotten dealings on the part of the management.

The real trouble now is that the fact has leaked out that the production of the wells for some time to come has been mortgaged to the Hearst estate. At least this is partly true. It is a matter of history that the Hearst estate at one time was under contract to take the entire output of the wells at 80 cents a barrel, and that the estate tried to repudiate this contract when the price of oil dropped to a much lower figure. That a lawsuit resulted in a compromise by which a certain amount was to be taken for a period of years for which the estate advanced a large sum of money, which money has all been paid in to the Home company and disbursed in dividends to stockholders; but that the period of deliveries of this oil covers the rest of this year and the year 1904. In other words the Home Oil company is under contract to the Hearst estate to deliver 44,000 barrels of oil during the year 1904 for which it has received payment already. This amount

probably represents one-half of the production at the rate the wells are now producing. With one-half of its production mortgaged and with royalties and costs and expenses of drilling new wells it is not easy to figure out where the stockholders are going to receive any dividends for some time to come. Here is the rub. From 7½ cents a share per month to nothing is a big drop.

than a year to come. No language is too strong to denounce such manipulation. Every director on the board should be kicked out of the company and if there is any law by which they can be punished it should be invoked.

When this trouble first began the PACIFIC OIL REPORTER thought that the thing was being magnified. Then it was a falling off in production and water. Both were natural consequences that could be reasonably and honestly accounted for. No word was heard about the future production of the wells being mortgaged to anybody. In fact it was only the past week that the true facts of the case became generally known. Had we known these facts at first we should have roundly denounced the whole business from top to bottom. The facts were being closely concealed to enable those who were "on" to

positions with producing wells fully equipped and selling oil. It speaks volumes for the oil business that there are not many such propositions for sale, but should there be any such the land department would like to be apprised of them, as its facilities for placing them before purchasers is unequalled by any other agency on the coast. In fact we have the customers already and must have the properties. Correspond with the land department.

### Was Appreciated.

That the worth of Dr. C. T. Deane's recent paper on the "Commercial Aspects of California's Oil Industry" was appreciated by oil men located far from California, is seen in the following editorial extract from "Petroleum" of London, which printed Dr. Deane's paper in full:

"Although the entire subject of



A Well of the American Consolidated Oil Company Which Made the Great Strike Noted in our Wyoming Oil News, on Page Eleven, of This Issue.

Of the \$90,000 distributed in dividends last year, \$60,000 was from the sale of oil to the Hearst estate, deliveries of which were to be made in the future. And moreover the stockholders were not apprised of the facts in the case. Were the stockholders who received the dividends the present stockholders it probably would not make so much difference. President Ellis and his friends who manipulated this deal got the bulk of these dividends and then, when the treasury had been drained empty, sold out and left the innocent purchasers of their stock to face a depleted treasury and a mortgaged output for more

get out.

There should be some kind of punishment for these rascals.

### Wanted.

The land department of this paper has customers for developed oil properties in the Kern and Fresno county fields. While the department has thousands of acres of good lands within the proven belt of the different districts listed at prices that ought to command ready sale, most of these properties are undeveloped, or have wells on them that have not been thoroughly tested on the pump. What the department has inquiries for is fully developed pro-

oil, so largely associated with the commercial life of California, has been well written up by experts, we consider this latest paper by Dr. Deane to be one of the brightest and most interesting of the non-technical studies ever submitted to a San Francisco meeting."

### Wonderful Gold Discovery.

Rich gold fields have been discovered about 160 miles west of the city of Oaxaca, Mexico, and 122 miles from the town of Ejutla. The ore found is said to assay up to \$50,000 a ton, and so great is the local excitement that cavalry has gone to guard the claims. The ledge is said to be fifteen feet wide.



## INCREASED DEMAND FOR OIL.

### Refiners of High Grade Oil Encouraging Production by Better Prices.

#### Fortunes Being Spent in Attempts, few of Which are Successful, to Find New Pools of High Grade Refining Oil.

Work as they will the oil men of the high grade oil fields cannot keep pace with the increasing demand for oil, as shown by the increasing shipments, says George Whitney, Jr., secretary of the Western Oil Mens' Association. Inspired by the fear that Nature's supply of oil is giving out, the Seep purchasing agency of the Standard Oil company, is rapidly restoring the price of the crude product, thus to excite the speculators to do more vigorous operating for the product. It is an admitted fact that with all the new discoveries of oil the production of high grade or refinable oil is decreasing to an alarming extent. Much of the production in Texas is going to waste for lack of a method of refining and the country is depending upon the eastern, Trenton limestone, Kentucky, Tennessee, Kansas and Indian Territory fields to meet the demand. The idea that it is possible to "catch up" with demand has been disproved so often that it is no longer entertained. The experienced oil man works hard to get oil from the earth that he may sell at high prices, but he has ceased to expect the time when production will equal consumption or the supply be adequate to the demand.

An eastern paper says that eastern stocks, which at one time amounted to 40,000,000 barrels, are a little over 5,000,000 barrels. The Trenton limestone stocks, which have been up to 27,000,000 barrels, are now below 17,000,000 barrels, and are declining largely each month. If the wells were all closed down for sixty days the stocks would be wiped out completely and the price would reach that of the early days on Oil creek, when "Coal Oil Johnny" amassed and spent a fortune in a very short period.

The operator has doubled his efforts and is devoting his utmost energies to the discovery of new oil fields and increasing the output of crude petroleum, but fails in his efforts. The industry is scattered over a wider area than ever before known and extended into states that a few years ago were unheard of and unknown as possible sources of petroleum production. Texas and California have become important factors to a certain extent, and within a few years promise to lead all the other

states in the amount of their production. But as the larger amount of their production or petroleum yield is of the fuel oil variety, it does not necessarily enter into present comparisons. Both states have been increasing their daily production, which has had its effect in bringing about a considerable decline in the market price of fuel oil.

The western prospects for high grade oils are centered in Kansas, Indian territory and Wyoming. In the last mentioned state there are fifteen distinct pools of a high grade product, but, being remote from pipe-lines and railroads, does not receive the attention that it should, but will in the very near future. Indiana is the one spot where the high grade product is being found in quantities, and there is a possibility of that state taking the lead.

What is mostly needed at the present time to meet the demand in the high grade product is a steady daily production of not less than 200,000 barrels, and to get this the pipe-lines will be compelled to put up better prices for it than they are now paying to induce the trade to go out and hunt for it. Materials used in operating are all high, and it costs quite a fortune to put down a test well with no chances of a return for the investment.

#### THAT VENTURA ROAD.

Rumor of One From Bakersfield to Hueneme.

The Examiner on Monday had the following:

"H. E. Huntington will shortly return to the coast from New York. There are good grounds for believing that E. H. Harriman and not I. W. Hellman is to be interested with Huntington in an electric road between Bakersfield and Hueneme on the coast.

"The objects of such line are to handle oil shipments from Kern county to tidewater and also to develop a rich section of country which the road would tap. Mr. Hellman, it is understood, is content for the present to finance for Huntington and himself the four big electric road companies they have in and around Los Angeles, and which will, when perfected as at present outlined, represent an investment of \$27,000,000."

## THE WESTERN PACIFIC.

Surveyors Laying Out Route Across Nevada Plains.

There are now two parties of surveyors for the Western Pacific working on the main line of the road that is to connect Salt Lake and San Francisco. Word has been received that the party which started out from Salt Lake some weeks ago is now in Nevada heading to meet the other party working east.

It is stated that the preliminary survey will be completed within the next sixty days. The main line, it is said, will go around the south end of the lake, via Garfield. In addition, a branch road to tap the Deep Creek district, if not the main line itself, is figured on.

From a reliable source it is learned that orders have gone forth from headquarters to rush things all along the line. Several Salt Lake draughtsmen have been approached with the object in view of securing their services for the line through to the coast.

#### New Strike in the Temblor.

In our issue of August 22nd we reprinted a news item from an exchange which mentioned an important strike in the Temblor district in Kern county. In this item the name of the company was given as the "Unona". The

name of the company is the Induna and instead of being a Bakersfield company it is composed almost entirely of Fresno capitalists, among them Jacob Clark, Truman G. Hart, L. L. Cory, George Helm, and other well-known oil men of the Raisin city. The well is located on the NE  $\frac{1}{4}$  of section 18, 29-21, seven and one-half miles northwest of McKittrick. A very rich oil sand was encountered at 810 feet and was penetrated to a depth of 80 feet when operations were suspended temporarily pending a meeting of the board of directors of the company. Several of the directors are still absent on their summer vacations, but as soon as a meeting is held it will be decided how the well is to be finished and how much further work will be done. The stockholders of the Induna are very jubilant over their strike and are now confident that an immense new field will be opened up in the Temblor.

#### New Discovery.

Petroleum has just been discovered near the village of Kilvar, in the Baku district. The oil oozes out on the surface and is being collected by the natives and used for lighting purposes in its crude state, with good results. By digging to a depth of 5-7 feet the oil springs up to a height of 15-20 feet.

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## ELECTRIC LINE ASSURED.

### Bakersfield and Ventura to be Connected by an Electric Road.

#### Chief Engineer Purcell Tells of the Line to be Built and the Route It Will Follow to the Coast.

The Los Angeles papers speak of the Bakersfield and Ventura electric railway as an assured fact. In fact construction of the line is at least under way. Ten thousand ties to be used in building the line have been landed at Hueneme. The new company is incorporated as the Bakersfield and Ventura Electric Railway company with a capital stock of \$2,000,000. Eben Smith of Denver is president, J. W. Burson, of Ventura, treasurer, H. M. Russell, of Los Angeles, vice-president and A. N. Sanford secretary.

The Los Angeles Times has the following to say concerning the new line:

"The people of Ventura and some of the surrounding farmers," said Gervaise Purcell, chief engineer of the Bakersfield and Ventura Railway company, in speaking of the matter yesterday, "seemed to feel that it was simply talk, and the former opposed our making Ventura the terminus of the line. But contracts have been let for the full quota of supplies and the work will be pushed along as rapidly as possible. This company is at present incorporated for the building of an electric line from Hueneme to Bakersfield and McKittrick at a probable cost of \$2,000,000, but the project is a big one. Once over the mountains it will be smooth sailing for the line to go up the valley to San Francisco. We will build to Santa Barbara and connect with Los Angeles. You know a properly managed railroad never stops."

"You will connect with Huntington from Los Angeles will you not?" was asked.

"We may, but he has not one dollar in this scheme," Mr. Purcell answered. "Of course, I am not saying but what he may be

the man who will connect with us from Los Angeles, and he may acquire a portion of the stock of this company, but so far no stock has been issued for the public."

It would appear that Huntington is the man behind the big project, even if he does superintend the move by telegraphy.

"We are opening up a virgin country and are trying to do for it what Huntington is doing for Los Angeles territory. The road will accomplish wonders for Hueneme, which is to be the terminus and shipping point, and will make practicable the operations of certain mining and quarry properties in the upper Sespe, which have not yet been opened."

"Hueneme is a hamlet at present, although at one time it was the principal shipping point in Ventura county. Since the mushroom growth of Oxnard, Hueneme has been gradually dwindling away. But the towns which are but three miles apart will grow together in a short time and Hueneme will become the largest shipping point between San Francisco and San Pedro," said Mr. Purcell. Senator Bard is the largest property holder in Hueneme and he with other members of the Hueneme Wharf company, of which he is president, owns the whole town with the exception of a few lots, which have been sold to residents from time to time. The other land owners are David Perkins and the Gerberding interests. The beautiful Las Posas Rancho is their principal holding.

"The new railroad is to be an 'Sshaped track.' From Hueneme the line extends north to Satcoy and thence east through Santa Paula and Fillmore. At Fillmore it turns north into the Sespe canyon, circling around in many curves up to the head of the

Sespe Pass, where the Sespe Hot springs are located. The railroad lately took possession of these valuable springs by squatting on section 22. The man who was controlling them had made a mistake and did his squatting on section 21, instead. The springs belong to the government, but the railroad is negotiating for a long time lease of them. Also it has purchased about eighty acres of land near the hot springs and bordering on the creek which are to be built into a pleasure resort. The line continues with a swing to the west, across the Mutaba meadows, down the Cuyama valley and into Sunset, through Bitter Creek canyon. From Sunset a spur runs east to Bakersfield and one out to McKittrick.

"The line passes through the largest lima bean ranch in the world and will draw on the extensive farming industries of beets, walnuts and citrus fruits for a large freight business.

"We expect to open up the government brown and gray stone quarries in the Sespe and will get an immense business from the Frazer Borate Mining company, which is at present turning out 300 tons a month and hauling it sixty-five miles to Bakersfield. There are heavy mining interests in this section, and the oil interests extend to Sunset. The road is to be broad gauge and will have a maximum grade of only 3 per cent."

#### In Mexico.

A Durango report states that oil drilling operations are being continued in various regions, but with small success so far, in reputed oil lands in the Valley of Mexico. The various companies formed a year or so ago seem to have relaxed their efforts; indeed, some of them never advanced beyond the share certificate stage. There is no authentic instance of native petroleum being used for fuel in Mexico, notwithstanding the many reported assertions by representatives of interested persons in regard to the daily production of alleged existing wells.

The California corporation, the Mexican Petroleum company, operating at Ebano, near Tampico, have placed an order with a New York firm for additional equipment. They claim a daily production of 600 barrels.

## SHORT OF FUEL OIL.

Lack of Expected Oil Supply Causes Great Loss at Nome.

A dispatch from Tacoma dated August 27th says:

Shortness of the season and delay in the arrival of fuel and machinery are resulting in a much smaller production of gold at Nome this season than was expected. Thousands of men have been disappointed, though by no means doubting the richness of the country and its ultimate output.

F. N. Nickey returned last night after several years' residence at Nome. He says that nearly 5,000 men flocked there this season, overstocking the labor market. John Kelly, the Pennsylvania oil millionaire, inaugurated several enterprises two years ago and had arranged to complete them this season.

Sixteen big crude-oil vats were erected and many miles of pipeline installed. Pumps for driving the oil from station to station until it reaches the ground owned by the company were installed, the purpose being to use the oil for fuel and wash a lot of ground this year.

A shipload of oil failed to arrive, and the pumps to be used in sluicing were also delayed. Two weeks ago hundreds of men employed on the Kelly enterprises were laid off. Anvil, Dexter and other developed creeks will have only a limited output because of the shortness of the season.

#### Kentucky Pipe-Line.

Operators in the Kentucky field are said to be in dire straits because of the stoppage of the Standard Oil company pipe-line. A large force of men is engaged in building relay stations, but it is said fully a month will elapse before the oil can be handled satisfactorily. At present oil is taken from each of the different districts in tank cars, and many wells have been shut down completely.

#### New Refining Company.

The Federal Fuel and Refining company has been incorporated by Edward McGary, Theodore Reichert, J. N. Prather, Horace Orear, A. Ottinger, J. D. Crawford, J. U. Hastings, U. L. Davies and Samuel Poorman Jr., with a capital stock of \$100,000.

## READING

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## THE STRIKE AT BAKU.

### Great Financial Loss Caused by a Strike in the Russian Oil Field.

#### Thousands Returning to Work—Hundreds of Rioters Forced to Leave—Demands of the Men—Destruction of Nearly One Hundred Derricks.

We have good reason to believe that the serious strike at Baku is fast approaching an end. Reports telegraphed by officials and others contain unmistakable evidence of the serious character of the disturbances while they lasted. It is now known that the men after a display of political feeling, submitted a list of trade grievances; they asked for a 20 per cent increase of wages, eight hours a day, a better supply of drinking water and water for washing purposes, the dismissal of certain obnoxious employees, and an undertaking on the part of the masters that no man should be dismissed without the consent of his fellow-workmen. As a matter of fact, says London Petroleum, some of the large firms granted similar demands before the strike started. There is evidence that these demands were not put forward until the political trouble had reached a serious stage. The Persians have taken no part in the strike. The Armenians, chiefly skilled workmen, assisted by Tartars and Lesgins, have led the wildest gangs of rioters in their attacks on properties, and on several occasions they came into violent collision with the military. One telegram states that when the rioting was at its height nearly 100 derricks at the Balakani oil field were ablaze. A detailed description of the losses sustained by the companies has not reached this country yet.

Thousands of workmen have been compelled by the military authorities to leave the town, and as many as 600 were sent in batches to the island of Nargan in the Caspian sea. Once the troops got the upper hand the worst characters were immediately deported to remote spots. The result was the subsidence of the trouble and the return of thousands of the men to their work. Not only was the feeling shown by the workmen in no way anti-British, but it is stated that when a great crowd of rioters rushed up to one of the properties owned in London they demanded to know the name of the firm. Some of the officials told them who owned the property; the leaders immediately shouted the name of the company and the crowd went off to resume their work of destruction elsewhere. Throughout the crisis the most bitter feeling has

been displayed towards the firms Rothschilds and Nobel. The heads of the leading companies, Rothschild, Nobel, Mantascheff, Gukasoff, Russian Petroleum and Liquid Fuel company, Baku Russian company, Schibaleff and company, with others, have acted together, both in the matter of considering the demands made by the men and for the protection of

full the nature of their claim to the land in dispute in the west side oil fields.

They admit that the land is now mineral in character and that there are located on the same valuable deposits of petroleum, asphaltum and gypsum, but deny that the same was at all times since 1863, or at that time, mineral lands or, in other words, that the existence of these deposits was then known and allege that the commissioner of the general land office at Washington formerly decided that they were not mineral lands, in a legal sense at that time and ceded them to the State in 1873 under the act of congress. The defendants then allege that the State had acquired full title and subsequently issued a patent to the Buena Vista Oil company, from which the title has descended to the defendant, the Western Pe-



One of the Guiberson wells in Purissima Canyon, Half Moon Bay district. This well is shallow and a good producer when kept clean. Notice the gas flame shooting out fifty feet to the right of the derrick.

the properties, but up to the present time no absolute settlement has been made, though, as stated, thousands of the men have returned to work. The oil field officials never anticipated a strike, and they were utterly unprepared to deal with the rioters when they commenced to attack the properties.

#### CHANGE CHARACTER.

**Legal Claim that Lands Once Agricultural May Become Mineral.**

An answer was filed at Bakersfield this week in the superior court in the suit of W. H. Boynton against the Western Petroleum company, Wellington Gregg, Jr., W. S. Downing and Edwin Schwab in which the defendants deny nearly all the material allegations in the complaint and set forth in

troleum company.

It is conceded, says the Californian that the suit hinges upon the question whether the lands were legally mineral lands in 1873 when they were ceded to the State, and if the grant was therefore invalid. The defendants further allege that the suit is barred by the Federal statutes of limitations passed in 1891, which requires all suits to vacate or annul United States patents to be brought within five years from the date of issue.

#### In Kentucky.

Fifty oil wells have been drilled in Cumberland county, Kentucky, within the last eighteen months. Twenty of this number are paying producers and are yielding ten barrels or more per day.

#### Texas Oil Notes.

Oil has been struck at Blossom, Texas, and the people there are confident that it will be found in paying quantities.

The Nome oil field, of Texas, is at this time attracting a great deal of attention. Old oil men are seeking land in that locality. Governor Hogg bought 100 acres. George Carroll has several tracts. Mr. Osborne, of Pennsylvania, and recently of California, bought 100 acres, and there seems to be a decided opinion that there is oil there.

The Guffey company is said to have abandoned five of its wells at Spindletop, and the number of pumps in operation in the local field is gradually growing very few. The salt water proposition is the one which knocks them out. The emulsion is hardly worth working in a number of the wells still under the pump.

Among the improvements suggested for Sour Lake and under consideration, is a refinery for the crude oil now going to waste. A company of Northern capitalists is being formed for the purpose of operating an institution of that character, and, it is said, will apply for a charter and commence the construction of a plant as soon as the necessary grounds can be obtained; negotiations for them being pending.

In preparing a resume of operations in the Sour Lake oil field up to August 1st, the "Oil Investors' Journal" says that facts and figures have been obtained first hand which show that since April 1, 1903, more than \$4,000,000 has been expended, or has contracted to be expended, in the legitimate development of the oil industry in this new field. It is to be doubted if, in the history of mineral or petroleum discoveries, an equal amount of development has been effected in the same space of time as has marked the opening up of the Sour Lake oil field. That the result of this work has been highly satisfactory in so far as proving the magnitude of the field, is shown beyond doubt by the fact that 50,000 barrels of oil are being moved daily by pipe line and railroad from Sour Lake. Estimates of the capacity of the seventy-five wells that have been completed in the field are conservative in making the amount 100,000 barrels daily. More than one hundred new wells are drilling and within sixty days the present capacity may be nearly doubled. Present facilities permit of the moving of 50,000 barrels of oil a day; with the completion of additional facilities, including storage, it will be possible to move 100,000 barrels a day.

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# HALF MOON BAY TO HAVE MORE WELLS.

The PACIFIC OIL REPORTER last week contained two modest little items among its "Latest Oil News" which deserve more than passing notice. One was to the effect that "The Guiberson company are drilling their seventh well and INTEND PUTTING DOWN SEVERAL SHALLOW WELLS. They made a depth of 275 feet the first five days." The other item was "J. E. Kerr of San Francisco has begun the erection of another derrick, and intends drilling several shallow wells from which it is known fair production can be obtained."

The editor of the PACIFIC OIL REPORTER has visited the Half Moon Bay field a number of times and while he makes no pretension of being an oil expert or of being a scientific geologist he is frank to say that he has made himself as well acquainted with matters pertaining to the oil industry as he could by frequent visits to the different fields of the State covering a period of several years and that in no district in the State are there so many and so convincing surface indications denoting the presence of petroleum as can be found in the Half-Moon Bay oil district.

More than a dozen years ago the Pacific Coast Oil company entertained the same idea and went so far as to drill a number of wells hoping to strike a big body of oil which would supply them with the refining oil wanted in their refinery at Alameda Point. Some of the wells which were bored at that time did strike oil but not in sufficient quantities to warrant the Pacific Coast Oil company in continuing operations, but some of the wells drilled by that company have been producing for years, and are still producing, not much to be sure but enough to demonstrate the fact that oil exists in that locality and



One of the deep wells now being drilled by J. E. Kerr, who has determined to drill at once a number of shallow wells in order to secure an assured production of valuable oil. Several derricks will be built at once.



The second well drilled by Guiberson, Sallee & Hayne. This well is a shallow one and has proved a good producer for years. This company will drill at once a number of shallow wells, keep them in good condition and stop trying for the deep sand.

that a slight change of location might result in a good producer.

Some months ago an editorial in the PACIFIC OIL REPORTER strongly criticised the methods that have prevailed in the different attempts made to develop this district by endeavoring to drill one or more deep wells in the attempt to find an underlying stratum of thick oil sand instead of devoting the capital and energy thus expended in drilling a number of shallow wells in which an assured production of 52° gravity oil, worth at least \$1.50 at the wells, could be obtained. As a result of that editorial and of articles of similar tone some of the Half Moon Bay operators have criticised this paper very severely. We have continued to hold the same opinion and we now note with great pleasure that several of the leading operators have apparently become convinced that it will be better for them to drill a number of shallow wells that will surely produce a certain amount of light oil than to expend the uselessly vast sums of money in the apparently hopeless task of endeavoring to reach the deep stratum of oil sand that is said to lay below.

In other words the Half Moon Bay operators have come to the conclusion that, "A bird in the hand is worth two in the bush," or in other words that ten wells which will yield the operator 100 barrels of oil a day is better than a deep well which costs much money and is liable to result in nothing. Ten small wells can be drilled cheaply, can be kept in condition so they will yield their maximum capacity of oil at little expense and the question of transportation and market is assured. The money that has been expended in San Mateo county on deep wells during the last two years is to have drilled and equipped at least twenty-five shallow wells. It is to be hoped that the companies operating in Half Moon Bay have begun to realize the wisdom of stopping the drilling of deep wells at least for the time being and expending all their energy and money in the sinking of a number of shallow wells as rapidly as they can be put down and completing them before the rainy season of this year has commenced.



# PACIFIC OIL REPORTER

Published Weekly  
The Oil Authority of the Pacific Coast.  
Endorsed by the California Petroleum  
Miners' Association.

W. B. WINN, Editor and Publisher  
OFFICE AND EDITORIAL ROOMS  
318 Pine Street, San Francisco  
Telephone, Bush 176.

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SIX MONTHS.....1 50  
THREE MONTHS.....1 00  
SINGLE COPIES.....10c  
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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
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SATURDAY.... SEPTEMBER 5, 1903

A month ago the editor of the PACIFIC OIL REPORTER commenced to suffer from severe inflammation of the ear. The suffering soon grew so acute that he placed himself under the medical charge of Dr. Louis C. Deane, the son of Dr. C. T. Deane, our widely known oil secretary, and a leader in California among the specialists on the diseases of the eye, ear and throat. For two weeks the editor was able to come to the city daily from his Berkeley home, receive treatment, and also attend to the most pressing of his editorial duties. On August 22nd the disease had become so acute and such severe complications threatened, Mr. Winn was removed to the McNutt Hospital in San Francisco where Dr. Deane could be called in at any hour of the day or night, and where the best nursing and care is obtainable.

Although Mr. Winn for more than a week was in a most serious condition medical skill has pulled him past the danger point. The inflammation has, apparently almost subsided. The extremely violent pain has stopped; and unless all signs fail Mr. Winn next week will be able to resume more or less active work in the office. It will take a long time before the stack of unanswered letters is cleared away, while many plans for future work will be held in abeyance until return-

ing strength makes it possible to carry them out.

The editor of the PACIFIC OIL REPORTER did not realize until seriously ill how many people were solicitous as to his welfare, neither did he know with what a faithful and capable band of helpers was he surrounded in editorial, composing and press rooms until his incapacity made it necessary for them to shoulder each a burden of their chief's responsibility.

Severe illness is sometimes a good thing in that it proves how true one's real friends are, and how at times help comes when most needed from unexpected quarters.

The editor is still flat on his back, but the worst is over, and next week will see him at his desk, SURE.

The PACIFIC OIL REPORTER has stated repeatedly that an oil that can be refined for illuminating purposes was the kind of oil most desirable for producing. It is better to have a well that can average ten barrels of \$1.50 oil than a fifty barrel-well of thirty cent oil.

There is in certain oil districts in the State oil that is suitable in greater or less degree for refining purposes. Some of the wells yielding this refining oil are good producers, averaging as high as 100 barrels per day or over. The majority are small producers; a twenty or even a ten-barrel well yielding a good profit on account of the high price of refining as compared with fuel oil.

We do not wish to be understood as underestimating the value of a fuel oil well of large productive capacity, or as prophesying any reduction in the future demand for fuel oil. On the contrary, we believe that a ten or twenty-acre tract of productive fuel-oil land will yield an enormous profit if the property is properly handled. But a ten or twenty-acre tract of refining oil land ought to yield a larger profit.

The market for kerosene on the Pacific Coast and in the Orient is rapidly increasing. The supply, however, is not keeping up with the demand.

The Standard refinery at Point Richmond can handle much more oil than is today being received, and the demand for more refined oil is increasing every month.

California's oil industry today needs more fields of refining oil. It is a well-known fact that the kind of oil needed has been found in enough quantity in certain localities to prove it is there; but with few exceptions no systematic attempt has been made to find the oil body. In several instances wells have been drilled so far from the "break" that a depth of from

3,500 to 5,000 feet would had to have been reached before encountering the oil sand.

The most likely of the new refining oil districts is the one at Half Moon Bay. Here the best oil in the State has been discovered—a fine oil of from 48° to 52° gravity. Some of the last wells have been sent down beyond the 2,000-foot mark, but no great production has been developed.

Several times the PACIFIC OIL REPORTER has urged the prospectors in the field to stop spending vast sums in drilling a few deep wells and to satisfy themselves with a large number of small-producing shallow wells.

It is absolutely certain that any amount of wells can be drilled in this district which at from 600 to 800 feet will yield regularly ten barrels a day of oil that is today worth at the wells \$1.50 a barrel.

It is gratifying to know that the wealthiest companies now in the field have decided to cease, for a time at least, any attempt to drill deep wells, and will devote their energies to the drilling of a large number of shallow wells that can be depended upon to yield a steady but small output of high-grade refining oil.

It ought to be an easy matter for the Half Moon Bay field to produce steadily from all its wells an average of 250 barrels a day.

In the eastern oil fields a 10-barrel well is regarded as a good producer. Here in California, where a 200-barrel well is "only fair," a 10-barrel well is looked at as of no account.

When is considered the light cost of drilling shallow wells, the high price obtained for the oil, the unsurpassed facilities for transportation, it is a wonder that there are not now completed in this district at least 100 shallow wells.

According to the U. S. patent office reports Mr. New Kind Alfred Paul, of Melrose Highlands, Mass., has been granted a patent on a new kind of fuel described as "consisting of coal dust, screenings of waste, wood sawdust, resin, sour beer (alcoholic) and molasses, mixed together, to form a fuel from coal dust." If at any time Mr. Paul should decide to add any more ingredients to his "fuel" he will find California ready to supply him with an abundant supply of gypsum, dried prunes, borax, asphaltum, sweet wines, olive oil, honey and bug-juice. Massachusetts is a barren field for the exercise of inventive genius compared to California. Mr. Paul should come to California by all means.

THE PACIFIC OIL REPORTER is the only oil paper on the coast Subscription \$2.50 a year.

London "Petroleum" and London "Petroleum Review" make frequent attacks upon each other. One paper seems to be fighting the battles of one class of operators, the other of another class, and the hammering they give each other is "just awful, don'tcher know." If one paper can pick a flaw in the other it does it and if the editors do not get to calling one another naughty names it will be surprising.

In its last issue "Petroleum" pitches into the "Petroleum Review" because the latter paper stole an article on the Coalinga oil field from the PACIFIC OIL REPORTER and reproduced a number of the cuts even, without giving this paper any credit for either article or illustrations.

What's the difference? If one man goes into your backyard, steals all your wife's washing off the line, calls the next day, leaves his card with the announcement that he is the one that stole, he is a good fellow; he's all right; he did the proper thing, and he's got the wash.

But if he fails to notify us that he was the guilty party, he's no good; a low down loafer; he's a thief; but he's got the clothes just the same.

As for us we steal our news wherever we can. Sometimes we forget to state where we stole it when we are thieves. Sometimes we remember to put on the tag. Then we're all right.

We do not kick when papers steal from us, and it rather tickled our sense of humor to notice one London paper kicking its competitor on our account.

Kick away, gentlemen.

## Heavy Oil for Roads.

This paper has frequently called attention to the fact that oil from 10 to 12 gravity is better for road making than the lighter grades. The knowledge of this fact is becoming so general that already the demand for the heavier grades is very marked. We are reliably informed that the demand for the heavy oils is becoming so great for road purposes that from five to seven cents per barrel above the market price is being realized for the heavy grades. There is very little of the 10 and 12 gravity oil produced and those having wells yielding that kind of oil at first were a little discouraged over the fact, and supposed that it could be used only for making asphaltum. This idea is changed now and those properties yielding the heavy oils are being sought after. Not only does the heavy oil give greater satisfaction and prove more economical as a fuel but as a covering for roads it stands above comparison. Oils of this gravity are found in vast quantities in the western extension of the Coalinga field and in the Sunset district.



## SALT LAKE ASPHALTUM.

### Great Possibilities for Utilizing the Great Salt Lake Deposit.

#### The Crude Material, Combined With Carbonate of Lime, Makes a Splendid Paving and Roofing Material.

A few weeks ago the PACIFIC OIL REPORTER gave quite an extended write-up of the new oil fields recently discovered on the north shore of Great Salt Lake in Utah. In that article the writer stated that it had been demonstrated that the bed of the lake for several miles was filled with an immense deposit of liquid asphaltum. A two-inch pipe driven sixty-five feet did not reach to the bottom of it, as was proven by the fact that the liquid continued to flow through this pipe. It also proved pretty conclusively that the deposit is practically free from debris for otherwise the pipe would have become clogged and ceased to flow. Just how wide a scope of territory this deposit covers cannot be stated positively, but it is known to extend for several miles.

Naturally there is some sand mixed with the asphaltum but not enough to render it hard. The deposit appears like a great mass of gelatine. An experiment was made with a sample of this liquid asphaltum by combining it with carbonate of lime in accordance with the discovery made by Henry F. Williams of this city, of whose patent extended notice was given in a recent issue of this paper. Eighty per cent of carbonate of lime secured from the refuse dump of a local beer sugar factory was combined with twenty per cent of this crude asphaltum, the resulting mixture being an exceedingly tough yet flexible compound suitable for paving or roofing purposes. The hardness of this compound we found could be varied according as more or less carbonate of lime was used. Eighty per cent of carbonate of lime makes a compound as hard as limestone rock and as tough as seysel. The only treatment given the crude asphaltum was to heat it to the boiling point to drive off the moisture, thus enabling it to mix with the carbonate of lime thoroughly. The process is as simple as mixing plastering mortar.

The possibilities of utilizing this great deposit of asphaltum in accordance with the Williams patent are to our mind very great. The deposit requires no refining or other treatment to prepare it for use for paving and roofing purposes in combination with carbonate

of lime. The carbonate of lime can be secured in almost unlimited quantities at the beet-sugar factories about Salt Lake. At present it is a waste product, no other use having been found for it. In fact, the factories are glad to get rid of it.

A very peculiar thing was discovered while getting a quantity of the asphaltum from the bed of the lake. It was found that the asphaltum could be handled under the salt water of the lake with the hands, or indeed any implement, without adhering. Great balls of it were rolled up with the hands under the water without a particle of it sticking to the fingers. As soon as it was exposed to the sun and air it melted down to a very sticky wax, requiring coal oil or gasoline to remove it. Men with shovels waded into the water and dig it up like sand, and it is not unlikely that a steam dredge could mine hundreds of tons of it in a day. This may sound to some of our readers like a Munchausen story, but seeing is believing and the writer knows whereof he speaks when making this statement.

We would be pleased to exhibit samples of the liquid asphaltum and also of the lime compound to

those interested, at the office of the PACIFIC OIL REPORTER.

U. M. THOMAS.

#### Home Stock.

The price of Home stock has risen materially in the past week and the panic is over. As we said a week ago, the stock of this company is still very valuable, and it is only a question of time until it increases in price still more. If the present stockholders will keep up their courage and hold their stock for a few months they will come out all right.

The wells are still producing a quantity of oil (about 300 barrels a day), and will continue to produce for years, and we are of the opinion that when Mr. Sam Shannon makes his report to the stockholders, many who have disposed of stock at a low figure will regret having done so.—Coalinga Oil News.

#### OUR OIL INDUSTRY.

California is Pressing Ohio for the Leadership.

There are facts of especial interest to California in the official report of oil production in the United States for the last fiscal year. In a preliminary report of the geological survey, which has just appeared, we have the interesting showing that last year's oil product surpassed all records, and that California stood second among the producing States. The total oil production of the United States for the year was 80,804,590 barrels, valued at \$69,610,338, an average of about 87 cents a barrel.

The oil-producing states, in the order of their output last year, stand thus: Ohio, California, West Virginia, Pennsylvania, Texas, Indiana, New York. Other

states producing oil to some extent during the year are Louisiana, Colorado, Kansas, Kentucky, Tennessee and Indian Territory. The total output of the states in that class, however, was only about two per cent of the whole.

The most interesting feature of the report, from the California viewpoint, is the evidence of the stability of this State's oil product. California is pressing Ohio closely for leadership in the oil industry of the United States. This progress comes from no such spurts of production as have been witnessed in Texas, but results from steady and substantial development. The facts presented in the official report prove that California is gaining in its oil output, while other states are losing. Texas, for instance, claimed to be nearly the "whole thing" in the oil industry two years ago, but now it makes a meager showing in the fifth place.

#### MORE TEXAS FIRES.

Sour Lake and Beaumont Oil Fields Devastated.

A special from Dallas dated August 30th says that fire last night in Sour Lake oil fields destroyed two storage tanks containing 50,000 barrels of oil.

Joseph Martin, a laborer, fell into one of the tanks and was burned to death.

The fire in the Beaumont field late last night burned 140,000 barrels of oil. Full details of either fire have not yet been received, but the losses will go close to \$150,000.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.



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## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### ALASKA.

The petroleum fields of Cook inlet and Copper river, Alaska, are attracting a great deal of attention. Machinery is being sent out and experienced oil drillers placed in charge. A number of companies have located from 1,000 to 40,000 acres of oil territory and are filing their location at Sunrise. This field is estimated to cover an area of 100x200 miles. It is not so much the great quantity of Alaska oil that is sought for as the high grade and quality of the oil. One analysis of a thick, tar-like sample, which gave 8 percent of kerosene, showed at the same time over 2 percent of naphtha, which is abundant evidence of light oil in its natural state. Many wells are being put down and it is the opinion of many that Alaska is destined to become one of the most important oil fields in the country.

#### COALINGA.

The Call Oil company spudded on section 32 last week on well No. 1.

The Esperanza Oil company is rigging up for No. 4 to begin drilling immediately.

Mr. C. V. Wishart sold to the Grand Central Oil company the whole of section 35, and the SW  $\frac{1}{4}$  of section 25, 21-14, which is located south of Alcalde station.

The Mercantile Crude Oil company has nearly finished rigging up No. 3 and expect to spud in next week. Messrs. Brown & Garrigan have been awarded the contract for drilling the well.

Mr. A. A. McFarlan, of Bayonne, N. J., Vice-president of the Caledonian Oil company is spending some time in the field. Mr. John Axford, of Philadelphia, who is interested in the Wyoming Oil fields, spent a few days looking over this field.

The Commercial Petroleum company is rigging up for well No. 3. Plans have been made for this company to carry on drilling operations uninterruptedly until six more wells are completed, thereby utilizing its valuable lease in the NE  $\frac{1}{4}$  of section 31.

McClurg & Claypool have finished their No. 3 well on section 31, and, although it has not yet been pumped to give the capacity, it will undoubtedly exceed the other two wells in its production. This will give these gentlemen three good producing wells.

Section Seven, Oil City Petroleum, Hanford Oil and the Commercial Petroleum companies are now delivering their oil to the Pacific Coast Oil company. The Pacific Coast Oil company has finished station No. 3, on the Hanford Oil company's lease, from where the oil of the Hanford and Oil City Petroleum companies are pumped to the main tanks.

Within the month of August eleven new wells were brought in in this field and not one among them produces less than 100 barrels while among them are wells with a capacity of nearly a 1,000 barrels per day. How long these wells will continue to flow at this rate cannot be estimated, but wells in this field have been flowing for over one year without lessening the production. Ten new wells were started during the past month to say nothing of those already in operation. Every indication points towards an unusual active season's work for this field.

On the 28th of August the new rig be-

longing to the Plymouth Consolidated Oil and Development company was sold at auction, as a result of an attachment that was put on it by the creditors. The rig was purchased by the R. H. Herron company, it being the highest bidder for \$825. Messrs. Smith & Fried have purchased the lease upon which the company had intended operations and have organized a company composed of Eastern men that will begin drilling in the near future. Since the completion of the big Commercial Petroleum company's flowing well this land has become very valuable being in close proximity with it.

The Section Seven Oil company's well which was brought in recently exceeds all other wells in the west side of the field in its production. Ever since it has been perforated it has been spouting out oil at times going beyond the top of the derrick. Immense quan-

ties of oil have gone to waste until the last part of last week improvised reservoirs were dug to utilize the oil. The estimated production of this phenomenal well have been placed all the way from 1,000 to 2,000 barrels per day. Perhaps a conservative estimate would put it at from 600 to 700 barrels. The oil is similar to that of the Esperanza; 18.5 gravity. Although this well was begun more than six months ago, encountering some serious obstacles, it stands without doubt as the best producing well in this field. Encouraged by the result of this well, the company is rigging up for No. 3. Its No. 4 well will be finished within a week or two, the indications pointing towards an equally good well as No. 1. This company delivers the oil to the Pacific Coast Oil company.

#### DEVIL'S DEN.

W. W. Parlin and Dr. W. B. Charles, who last week made a trip to that part of

#### KERN

The Sunset Center is shortly to begin work on another well.

The Junction is installing a gas plant on its property at Kern River.

The Vanderlip is ready to drill well No. 3 and work will begin next week.

The Nevada County company has brought in its well No. 13, and is ready to drill 14.

The Associated is erecting several rigs on the Omar lease on 32, 28-28, adjoin-

company, whose property is located on 4, 29-28 paid its sixteenth dividend on Saturday last. The amount is 1 cent a share. The company is one of those in the Associated.

Drilling is going on on several properties. The Kern River has recently finished No. 13 and is working on No. 14. The San Francisco-McKittrick has just finished No. 6. The Associated and the Southern Pacific are running two and three strings respectively.

The Petroleum Development, owned by the Sante Fe, has rigs up for six additional wells on 4 and 5. The well drilled by this company on 9, 29-28 is down 800 feet without having obtained oil, although a gas blowout some time since blew the tools out of the hole.

A party of the directors of the Apollo and the Four, which are controlled chiefly by the same people, visited the field a few days ago and inspected the two properties. It is now learned that it is the intention of the company to commence drilling operations within another month and five wells will be sunk.

The Southern Pacific has filed the deeds made some time ago for its rights of way through the Kern River oil field. Those filed were the deeds given by the Petroleum Development, Reed Crude, Wolverine, West Shore and Kern. The railroad has already been built across the lands and has been in operation for several years.

The Continental, a Los Angeles corporation, has just entered the Kern River field and has secured forty acres from the Bunker Hill on section 20 and has let the contract for its first well. The company has made a very desirable contract for oil and is entering the Kern River field to increase its production in order to fill the demand.

The company just organized by Dr. Liscum of the Vesta, has been named the Manhattan, and will operate on ten acres adjoining the Vesta, which it has acquired from the Nevada county. This is on 31, 28-28 at Kern River. The company has the lumber and material on hand to erect rigs to drill several wells at once. The corporation is composed of Los Angeles capitalists.

Visitors to the Kern River field report that while there is little doing at the present moment in the way of drilling at the various properties compared with what was going on a month ago there is much work in sight for the fall and all are talking of what is to be done as soon as the summer period of depression is passed. Many companies are making arrangements already to begin work.

Twelve thousand barrels of heavy Kern River oil mixed with one-fourth water were pumped through the Standard's great pipe-line from the Kern River field to Pond in twenty-four hours one day early this week. The use of water with the oil is proving highly successful. This is the best record for pumping yet made. The maximum capacity for water is 20,000 barrels for twenty-four hours.

W. R. McMurdo visited Sunset last week to make the necessary surveys for the Fulton's reservoir No. 2. The first has just been completed for the oil and the second is to be pushed at once. The building of these immense reservoirs so soon after the starting of work on the property is taken as evidence that the company expects to do an immense business. As the pipe-line goes right by the property there will be no difficulty in shipping all the product of the wells.

The Jerome has just increased its acreage on 11, 29-21 to 147  $\frac{1}{2}$  acres including its original property, by purchasing the 27  $\frac{1}{2}$  acres belonging to Canfield & Whittier and is putting up a rig to begin drilling on this. It is also drilling on its original property. In ad-



One of the wells drilled over ten years ago in the Purissima Canyon, Half Moon Bay district, by the Pacific Coast Oil Company, now a part of the Standard Oil company. This well is still producing a fine quality of 52° gravity oil.

ing the Clairmont, and will begin drilling in a few days.

Fred J. Barnett, who was formerly interested in the Kern River field, is now with the Fidelity company, which has a well in oil in Florence, Colorado.

The Veteran Oil company, headed by Dr. C. T. Deane, secretary of the Petroleum Miners' Association, has obtained land on section 29, where it will drill at once.

The Grossmayer Lease company is moving material to begin work on well No. 5. The company has purchased the outfit of the New Hope, which formerly operated on Poso Creek.

The Sunset field is reported to be becoming more active than it has been. The Sunset Coast has a rig up ready to drill at once on its property. Other companies are either starting up or are about to do so.

The Central Point Consolidated Oil



dition to the above the company has leased the Belmont well on the same section adjoining the land just purchased. The company will develop all its property which is within proven territory and is considered very valuable.

The Dabney at McKittrick is now working on a number of its wells which have not been giving satisfaction. The drive-pipe used, collapsed owing to the gas pressure and heaving sands and new material is being substituted. The work has just been completed on No. 2 and a yield of 240 barrels a day is obtained at a depth of 540 feet, the work being done with new eight-inch drive-pipe. Work is now being done on No. 8 and a number of water wells are also being put down by the company. The Dabney has now seventeen wells and is a heavy producer. Its land is leased under a royalty and is in the heart of the McKittrick field.

The Transport Oil company is the name of a new corporation which has entered the Sunset field and will commence drilling on section 2, 11-24 in the near future. Frank Pryor, superintendent of the company, is now here making arrangements for work. The property acquired is in the northwest portion of the field next to the Monarch property and is right near the pipe-line now being put in. This is within the proven belt. It is understood that capitalists of Titusville, Pa., are behind the enterprise, but it is also reported that the Midland Pacific, or at least some of those interested in that road have interests in the new corporation. If true, this may be of significance and of interest in connection with the prospects and intentions of the Midland Pacific.

The well being drilled by the Maricopa at Sunset is proving one of the wonders of the oil fields, says the Californian. The drillers have never been able to land the casing or even come within 100 feet of oil sand owing to the immense pressure. Notwithstanding this the well continues to spout oil and at periods it will pour forth in great jets six or seven feet above the 7½-inch casing. All rods have been taken out and the company is trying to get control of the stream so as to reach the oil sands, but without much success. No attempt has been to measure the average daily output but it is believed to be equal at least to that of any well in the Kern county fields, and is probably greater. At times it will burst forth and will yield 1,000 barrels within twelve hours.

Pumping oil by means of natural gas from the well is the latest plan of operations to be adopted at the Kern River field. The gas is allowed to flow into a gasometer and from this it is supplied to the engine. Two wells are being operated by these means and the company claims that it is getting much better results now that it did with the wells on the beam. The Associated purchased its plant a few days ago, and it is said if it is satisfactory more will be installed shortly. The use of natural gas in this way is an entirely new thing in this section and experienced oil men say that it has never been used anywhere until very recently, if at all. By this plan the cost is reduced to a minimum. One man can attend to several of these, thus in many cases dispensing with the services of several which would be required if engines of the old class were used. About fifty oil locations have recently been made in the vicinity of Mono Lake, Cal. It has for a long time been supposed that oil existed in that neighborhood, but very little work has been done heretofore.

#### LOS ANGELES.

The Los Angeles city field, the production of which has greatly fallen off

in the last two years in consequence of the exhaustion of the strata, is receiving a good share of the revival in drilling operations. Quite an important deal in property in this field has just been consummated, the Union Consolidated Crude Oil company having disposed of about one-third of its wells and considerable adjacent undeveloped territory to Morris McCray, a local operator. This may be of interest to the stockholders of the Consolidated Oil companies of California, practically all of whom are Eastern people, for the latter corporation was founded on an option it held on the Union Consolidated Crude Oil company's stock, the proceeds of the Consolidated companies' stock being used to take over their Consolidated Crude stock. The Consolidated companies, however, failed to "fill" on its option, and the deal is off. The purchasers of Consolidated companies' stock, however, are being made whole by a direct transfer to them of presumably equivalent value in the Consolidated Crude stock.—Bonds and Mortgages.

#### SANTA MARIA.

Mr. J. M. Clapp, the Pennsylvania millionaire oil man who has purchased the Tar Springs property for purposes of development has visited every important oil field in California as well as the East and is thoroughly informed as to what an oil well should be. In talking with our business men he paid the following high tribute to the Pinal oil wells near Santa Maria: "I have been to every important oil field in this State and have examined individual wells carefully and I have no hesitancy in saying that the Pinal oil well is the best in the State. It has the best flow, a high-grade oil and an oil-bearing formation the best of any well on the coast."—Breeze.

One of the strongest oil companies yet to come into Santa Maria will begin operations in a very short time, and in fact the lumber is already on the ground. The new company is known as the California Coast Oil company and is composed of some of the best oil men in America, including such prominent men as Captain Matson, president of the Pacific Oil and Transportation company, who handle most of the Western Union oil and refine it at Alcatraz. Drilling will begin on the Drumm property, and when the first rig is properly started several more will begin operations on the Bradley and Tunnell tracts. The company has nearly 1,000 acres of the very choicest oil producing properties in the valley.—Santa Maria Times.

#### WYOMING.

Mr. C. G. Andrews of the Hawthorne Oil company arrived in Evanston Thursday, accompanied by his wife and an expert well driller. Their rigs have already been shipped from Los Angeles and the company will be at work by the middle of September.

The Bettys Oil and Development company have received their car of casing shipped some three months ago. On account of its non-arrival the company had to shut down at 550 feet the first of July, at which time they got a good showing of oil. Work will be commenced Monday and we look for good results in the near future.

Rumor has it that John D. Rockefeller accompanied by one of the Standard Oil company's experts, arrived in Spring Valley the first of the week and made a careful investigation of the oil field. The visit is very significant as it is positively known that negotiations are being made between the producers and the Standard for the output.

G. C. Straus, one of the directors of the Inter-Ocean Oil company has been in the oil field the past week making a careful investigation of the oil industry here. Mr. Straus was so much pleased at the outlook that he at once secured

over 1,500 acres of oil land, consisting of the best in the field left open at the time, including the Piedmont Oil company's property which was bought outright; that company having suspended operations after drilling 350 feet on account of lack of capital. At an interview Mr. Straus said: "Being simply a director of the company it would be impossible for me to make a statement as to our increased holdings. Personally speaking, however, I will say that I am very much pleased with the advanced condition of the oil field and consider reports that have been sent out from the field of a very conservative nature, as everything looks very much better than I had anticipated. The Inter-Ocean company will be actively engaged in drilling by next month."

The American Consolidated Oil company brought in a big oil well on section 23, 15-118 last Tuesday morning and the gas becoming ignited from the engine-room nearly resulted in the loss of their rig. The drill tapped the oil sands at about 1,100 feet and the oil came spouting out over the top of the derrick, running down the hillside and collecting in a pool at the bottom, some half mile away. A great deal of gas accompanied the flow of oil and in an instant the structure was in flames. Hose was connected with the boilers of two nearby rigs and steam turned on the fire with such effective results that the fire was extinguished without material damage to derrick or buildings. The two nearby rigs were in great danger of conflagration but streams of water played on them prevented them from becoming ignited. The oil continued to flow from the well for several hours, finally receding to the top of the casing from which the oil was pumped out to a point 100 feet from the top, but constant pump-

ing failed to lower it beyond that point. The well is considered the best in the field and the strike has created a great deal of excitement here as it was made on a section of land included in the congressional land grant to the Union Pacific railway company and which was filed on and contested by the above mentioned company. Under a decision of the Department of the Interior all land in this grant not fully patented is held open until December 1, 1903 in order to give contestants time to demonstrate if it is oil land and this strike has demonstrated the fact beyond question. The fact that the owners of the well are very reticent leads us to believe they have an exceptionally good thing. The well has been finished and is now being rigged up with pump.

#### Keep an Eye on Him.

Charles A. Sarber, junior member of the notorious Adams & Sarber company, has started in a new deal. He is now president of the Sarber Oil company, which occupies five of the ten rooms formerly occupied by the clerks and employees of his former firm, in the Schofield block, Cleveland. Local offices have also been opened at Marietta. Mr. Sarber says he has some leases in Allen county which the new company will operate. Preacher Adams has gone to New York, where he also expects to start in the oil business. It will be some time before the general public will be led into any more of their oil speculations.—Oil City Derrick.

## Wyoming Oil Lands

I have just secured control of over 3,000 acres of valuable oil land, located in the famous Uinta county oil field, where recent discoveries of oil have caused such wide-spread excitement. This land is mostly in the recognized oil belt, directly north and south of the producing wells and but a short distance from the big well brought in August 24th.

The present owners of this land are unable to develop it on account of lack of capital, and I am enabled to offer it at a figure too low to publish. Will be glad to give a full description of the land to parties meaning business.

**E. S. EASTMAN,**  
Evanston, Wyoming.



## A WELL FOR \$20.

### The Sheriff Sells a Spindletop Well for That Sum.

Twenty dollars for a thirty-second of an acre and a six-inch well on Spindletop!

Frank W. Godsey paid the money and got the property at a sheriff's sale at the Beaumont courthouse three weeks ago. He was passing through the corridor when he heard Sheriff Ras Landry calling out a description of the land and asking for bids on it to satisfy a judgment obtained by a Galveston printing house against the owner, the Union Oil company. Moved by curiosity, Mr. Godsey asked a few questions and when some one cried: "I bid \$10" he went the gentleman better and offered \$20. No other bidder being heard from, the well and land went to him for \$20.

Less than two years ago the same property, without a well on it would have brought—and probably did bring—\$3,500. The well cost \$6,000 or \$7,000, so that Mr. Godsey's purchase represented an original investment of \$10,000 or more—similar pieces of Spindletop land with a well sold for as much as \$25,000.

On investigation Mr. Godsey discovered that the well was in block 38, Hogg-Swayne tract, in what is known as the salt water district. It had been operated but the rig was burned off in the April fire and a temporary derrick was the only improvement on the property. Seventy-five feet distant a well was being pumped and was showing 600 barrels of water and six barrels of oil a day.

But that was three weeks ago, and when Mr. Godsey went out to the field last Sunday, he found that the same well was doing 500 barrels of oil. It was his intention to pull the casing—which was worth from \$1,000 to \$1,500—but he is waiting for further developments in the neighboring well, and is planning to operate his purchase.

The price paid by Mr. Godsey in no wise represents the actual value of Spindletop property, for there are wells on the old hill to-day doing 600 barrels every 24 hours. But in some portions of the field the operators have been discouraged by salt water and other obstacles and this is generally true of the entire Hogg-Swayne tract, although there are several fairly good wells on the north side of the 15 acres. It is probable that the gentlemen comprising the Union Oil company grew tired of paying out and getting nothing back, and decided to "let 'er slide." The Union Oil company is a Galveston concern, incorporated on January 21, 1902, with an authorized capital stock of \$300,000. Among the organizers and directors are several promi-

nent bankers and business men of Galveston.

Frank W. Godsey is a notary public and is manager of the Texas Abstract company of Beaumont.—Oil Investor's Journal.

## PRODUCTION OF REFINED

### Figures Showing the Extent of the Standard's Business.

How vast is the illuminating branch of the Standard Oil company's industry can be gathered from the export figures furnished by the Bureau of Statistics of the Department of Commerce and Labor and the statistics furnished by the census of 1900.

The production of refined oil in the United States in 1899 was 25,171,289 barrels or 1,258,564,450 gallons. The value as given by the Standard Oil company was \$74,694,297, yet the value of 14,491,259 barrels exported was given as \$18,466,200. The product came from these states: California, 45,849 barrels; New Jersey, 6,232,612; New York, 5,423,440; Ohio, 1,387,150; Pennsylvania, 7,276,712; all other states, 805,526.

According to the census of 1900 the production of illuminating oil, in barrels of fifty gallons each, has been as follows since 1880, the years from 1881 to 1888 being omitted:

Year	Barrels.	Value.
1880.....	5,722,634	\$20,047,908
1889.....	11,035,393	41,215,192
1890.....	11,017,468	39,826,086
1891.....	10,628,902	34,879,759
1892.....	11,788,364	31,826,545
1893.....	12,844,796	30,719,404
1894.....	14,607,372	30,676,217
1895.....	14,297,183	34,706,844
1896.....	14,329,111	\$48,630,920
1897.....	15,918,390	46,229,579
1898.....	15,223,092	38,542,082
1899.....	14,491,359	48,466,200

The census gives no figures more recent than 1899. The Bureau of Statistics takes up the story at the end of that year and gives the exports for 1901 and 1902. The quantities are in gallons instead of barrels:

Countries:	1901.	1902.
Europe.....	550,603,378	589,282,063
North America..	20,084,061	20,836,052
South America..	43,964,117	43,330,860
Asia.....	128,299,535	161,080,240
Oceania.....	24,388,373	17,129,511
Africa.....	13,867,641	11,170,341

Totals.....781,207,105 842,829,070

The value of the exportations for the two years is thus given:

Countries.	1901.	1902.
Europe.....	\$30,067,155	\$31,250,645
North America..	1,685,567	1,666,818
South America..	4,342,886	3,958,895
Asia.....	11,381,674	13,831,012
Oceania.....	2,532,875	1,550,015
Africa.....	1,467,110	1,132,960

Totals.....\$51,477,267 \$53,390,345

The illuminating oil figures for 1903 show a falling off in exports. The total exports for the year were 699,810,892 gallons, the cost of which was \$47,079,842, a decrease in value of \$6,310,503.—New York Herald.

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### An Ideal Fuel.

Commander Edwards, chief of the United States Board on Fuel Oil Tests, calls attention to the fact that oil is an ideal fuel for the grinding mills on sugar plantations. These mills require to be run night and day during the grinding season, when the cane is brought in more rapidly than it can be disposed of, and is liable to deteriorate until ground. It has been found extremely difficult to obtain competent stokers for the night shift at these mills, and, in fact, firemen for day work are scarce, and command relatively high wages. The use of oil simplifies the stoker's task, for instead of handling large quantities of sulphurous soft coal, he is only obliged to supervise the burning of the oil, his chief duty being to see that the flow is unimpeded.

### In Roumania.

It has been determined that the chief cause of the failure of oil exploitation in Roumania is due to the want of thorough geological research both in the elementary and progressive stages of exploitation. Nowadays no industrial undertaking is possible without previous scientific research, which warrants development and ultimate results. Especially in the case of mining undertakings no practical management can be insured unless geological researches have been conducted, and these should not be limited to the portion actually being exploited, but should cover a wider district. Oil exploitations, which are more hazardous than any other undertakings, must be carried on by the aid of methodical research.—London Petroleum.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, September 2nd:

ALMA.	
100 at 1 35.....	\$ 135 00
CARIBOU.	
50 at 75.....	37 50
200 at 80.....	160 00
100 at 85.....	85 00
100 at 90.....	90 00
100 at 92½.....	92 50
100 at 95.....	95 00
CALIFORNIA STANDARD.	
100 at 10.....	10 00
CHICAGO CRUDE.	
1,000 at 20.....	200 00
FOUR.	
200 at 68.....	136 00
HANFORD.	
1 at 132 00 (S 90).....	132 00
HOME OIL.	
100 at 1 20.....	120 00
2,880 at 1 17½.....	3,384 00
300 at 1 17½ (S 30).....	352 50
100 at 1 15.....	115 00
200 at 1 10 (S 30).....	220 00
100 at 1 10.....	110 00
100 at 1 07½ (S 30).....	107 50
100 at 1 05.....	105 00
100 at 1 02½.....	102 50
2,600 at 1 00.....	2,600 00
400 at 1 00 (S 30).....	400 00
100 at 1 00 (B 30).....	100 00
200 at 97½ (S 30).....	195 00
170 at 90.....	153 00
200 at 80 (S 90).....	160 00
100 at 75 (S 90).....	75 00
300 at 70.....	210 00
100 at 65.....	65 00
700 at 60.....	420 00

### INDEPENDENCE.

13,650 at 17.....	3,170 50
3,000 at 17 (S 30).....	510 00
2,000 at 18 (B 90).....	360 00
500 at 18 (B 30).....	90 00
100 at 18.....	18 00

### KERN RIVER OIL.

10 at 10 50.....	105 00
10 at 11 00.....	110 00
10 at 11 50.....	115 00

### LION.

1,000 at 03.....	30 00
3,000 at 04.....	120 00

### MONARCH.

225 at 51.....	114 75
2,125 at 52.....	1,105 00

### MONTE CRISTO.

7,200 at 65.....	4,680 00
800 at 67.....	536 00
400 at 70.....	280 00

### OCCIDENTAL OIL.

1,000 at 18.....	180 00
250 at 19.....	47 50
50 at 20.....	10 00

### OIL CITY PETROLEUM.

500 at 28.....	140 00
500 at 28 (C).....	140 00

### REED CRUDE.

1,320 at 41.....	544 48
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### S. F. & MCKITTRICK OIL.

50 at 2 65.....	132 50
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### SOVEREIGN.

1,000 at 38.....	380 00
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### STERLING.

335 at 2 80.....	938 00
100 at 3 00.....	300 00

### SUPERIOR.

2,151 at 06.....	129 06
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57,395 Shares Amount \$24,653.29

### AMERICAN BISCUIT CO.

40 at 90.....	36 00
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### NORTHERN CAL. POWER CO.

100 at 9 25.....	925 00
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### S. F. GAS & ELECTRIC.

10 at 66 50.....	665 00
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150 Shares Amount \$1,626

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.45	
Apollo.....		
Asso. Oil Co Stk. Tr.		
Certificates.....	.23	.25
Aztec.....		
Bay City.....		
Bear Flag.....		
California Standard.....	.09	
Caribou.....	1.02½	
Central Point Con.....	.85	
Chicago Crude.....	.20	
Clairemont.....	.23	.25
Esperanza.....	1.00	
Fanna.....		
Four.....		
Fulton.....		
Giant.....		
Hanford.....	133.00	
Home.....	.61	.65
Homestake.....		
Imperial.....		
Independence.....	.17	.18
Junction.....		
Kern.....		5.25
Kern River.....	11.00	
Lion.....	.04	
Monarch of Arizona.....	.51	.53
Maricopa.....		
McKittrick.....		
Monte Cristo.....	.66	
Nevada.....		
Occidental of West Va.....	.18	.19
Oil City Petroleum.....	.28	
Peerless.....		
Petroleum Center.....		
Pittsburg.....		
Piedmont.....		
Reed Crude.....	.41	
S. F. & McKittrick.....	2.65	
San Joaquin O. & D.....		
Senator.....		
Shamrock.....		
Sovereign.....	.33	.38
Sterling.....	2.70	
Superior.....	.06	
Thirty-three.....		
Toltec.....	.20	.21
Twenty-eight.....		4.40
Union.....		
United Petroleum.....		
West Shore.....		
Western Petroleum.....		
Wolverine.....		.50

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**9:30** A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11:10 p. m.

**9:30** A. M.—VALLEY LIMITED; Due Stockton 12 01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

**4:00** P. M.—STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

**8:00** P. M.—OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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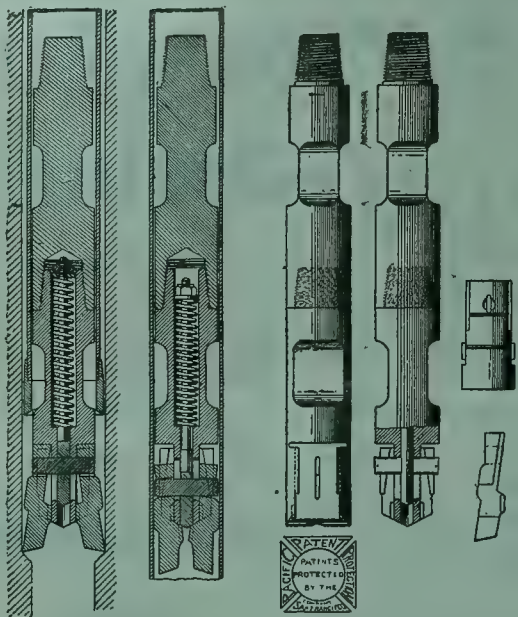
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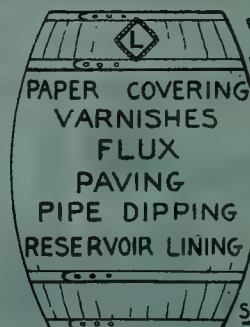
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Vol. 4. No. 45.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 12, 1903.

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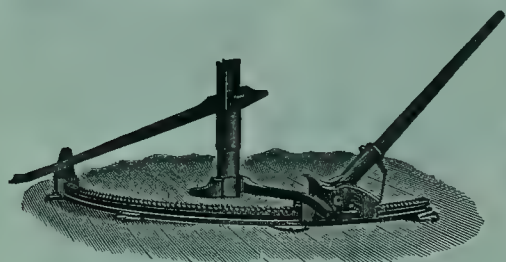


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# PACIFIC OIL REPORTER

VOL. 4. No. 45. SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 12, 1903. PRICE, TEN CENTS.

## HOW OUR OIL IS REFINED.

### Various Refined Products Obtained from Our California Oils.

An Interesting and Instructive Paper by Dozler Finley, B. S., Published in the Californian Journal of Technology.

The character of California oil is different from all the oil which has previously held the name of petroleum in America. To appreciate the difference it is necessary to compare the California oil with the older and better known oils of Pennsylvania, Ohio, New York and Virginia. The petroleum of the Eastern states consists largely of a series of methanes or paraffines, compounds of carbon and hydrogen in which the algebraic proportion  $C_n H_{2n+2}$  is rigidly preserved. This oil is characterized by the lightness of its specific gravity in relation to its boiling point, by its marked resistance to the attack of many strong chemical disintegrating processes and by the fact that the heavier portions are partially crystalline at ordinary temperatures. The proportional admixture of the constituents of particular boiling points is characteristic. A flask distillation of a common Eastern crude oil gave:—

Gasoline—B. P. to 100° C.....	4%
Benzine—100° to 150° C.....	10%
Coal Oil—150° to 270°.....	50%
Intermediate Oils—270° to 310° C..	17%
Lubricating Oils—300° upward....	16%
Paraffine—Extracted.....	1%
Coke and loss.....	2%

Another characteristic is that in refining on a large scale as high as 65 or 70 per cent of illuminating oil is obtained instead of the 50 per cent as given above. This is due to "cracking," a process applicable only to paraffine oils.

The petroleum of Russia is far different from the Pennsylvania oil, but very similar to the California oil. The Russian oil has found an extended use but has been developed in a manner somewhat different from the Eastern oil and does not compete with American oil except in certain parts of Europe.

California oil consists to a great degree of naphthenes, compounds of hydrogen and carbon, in which the proportion is  $C_n H_{2n}$ . The density of naphthene compounds is greater than that of the para-

ffines of corresponding boiling points or of the same number of carbon atoms. Naphthenes are not so resistant to chemical disintegration as are paraffines. Though California oil yields a solid residue of asphaltum, neither from the residue nor from the distillates

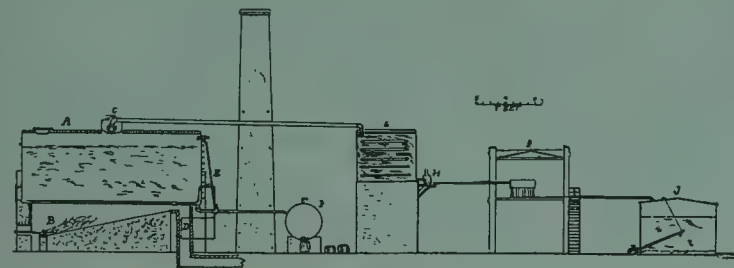


FIGURE 1.  
A. Still. B. Furnace. C. Safety valve. D. Superheater. E. Try cocks. F. Residuum cooler. G. Condenser. H. Gas separator. I. Oil distributing house. J. Receiving tank.

can be obtained the solid crystalline paraffine characteristic of Eastern petroleum. The proportion of various oils obtained in a laboratory distillation shows a marked contrast to the proportion obtained from Eastern oils. The following is taken from an oil commonly used for refining in the San Joaquin valley region:

Gasoline—to 100° to 150° C.....	1%
Benzine—100° to 150° C.....	4%
Coal Oil—150° to 220° C.....	10%
Pyronaphtha—220° to 260° C.....	10%
Gas Distillate—260° to 310° C....	20%
Heavy Distillate for Fuel or Lubricating Stock—310° C. upward..	37%
Asphaltum—Grade D.....	18%

It will be noticed that the boiling points of California oils differ from the like constants of similarly named Eastern products. In the refineries on this coast "cracking" is not practiced and consequently the results of a laboratory test correspond well with the refinery distillation save that the heavier portions are apt to "crack" in the distillation flask unless steam be introduced.

California petroleums from certain districts are almost or quite identical with the Eastern petroleum, but these districts are small and the product finds only a

very local use. However, many well drillers hope to discover large bodies of paraffine oil on the Pacific Coast, and their hopes will probably be realized at some time.

Having defined the character of our local oils, their application is of next importance. The crude oil, as such, is capable of only limited application; it makes an excellent and cheap fuel; it has been found of use in road making, and recently crude oil has been applied to metallurgical processes. But in the refinery products of such diverse natures may be prepared at such moderate cost that it is not strange that the refinery should be an attractive field to commercial men and technical chemists.

The location of refineries in

on the size of the refinery and the rate of supply; the capacity of the storage for finished oil depends on the size of the refinery and the rate of marketing. Usually tankage should be provided to store sufficient crude oil to last one month and enough storage reserved to receive one month's production of each kind of oil. The tank shown in Figure 1 is characteristic of tank fittings. A cock is provided for drawing off water from the bottom and a swing pipe is so attached as to keep the suction in the settled oil in the upper portion of the tank. Occasionally the oil is so viscous that a steam coil is placed in the tank to facilitate pumping by heating.

Boiler capacity, water supply, pumps and piping are governed by the amount and character of the oil handled. The boiler capacity is not less than 100 horsepower per 1,000 barrels still capacity. The water supply varies with the method of condensation, but 20,000 gallons per hour is ample for 1,000 barrels still capacity. Cooling ponds may be used to economize the water supply. Oil pumps rarely have to work against great pressure, hence they are of the light service pattern. Crude oil pumps may be of the medium service pattern, while residuum and heavy crude oil pumps must be of the high pressure design. Compound steam pumps may be used to advantage in larger refineries. Cooperage is essential for shipping, glued barrels being used for the finished oils and light pine sugar barrels for asphaltum.

The still is the first essential of the refinery. It varies from a few barrels capacity to 1,000 barrels. In all sizes the construction is similar. The shape is cylindrical, the length slightly exceeding twice the diameter. At the top is placed a vertical cylindrical dome equal in height and diameter, these dimensions being about one-fourth the diameter of the still. Through the dome the vapors pass to the pipe leading to the condenser. On the dome is also placed a pressure safety valve. Manholes at the top and one end of the still facilitate cleaning. Perforated pipes distribute superheated steam in fine jets on the inside of the still and prevent the asphalt from coking on the bottom. Tricocks are placed at one end so that the stillman may ascertain the level of the mixture within and test the residuum. Pipes for pumping in

California is determined by transportation rates and marketing advantages. Refineries located in or near Los Angeles may take advantage of the two factors—nearness to the wells and proximity to the market. In the Bakersfield region many refineries are operating for the production of asphalt, which is shipped to the East, while the distillate is sold, without further separation, as fuel or gas-making oil. To supply the market at San Francisco many refineries are located around the bay, receiving their oil from the wells either in tank cars if from the San Jo. quin valley, or in tank steamers if from the Southern California coast oil fields.

Refining equipment consists of storage tanks connected by appropriate pipe-lines, water supply, steam plant, pumping machinery, cooperage and, as essentials of refining, stills, condensers, residuum coolers and agitators. This equipment varies in detail with the variety of oil to be refined and according to the products desired.

Storage tanks range in size from forty-two thousand to a million and a half gallons. The amount of the crude oil tankage depends



oil are provided and cocks are suitably placed for withdrawing the residuum into the coolers. The setting of the still is sufficiently clear from Figure 1. The absence of flues in the still causes great wast of heat but flues would be liable to burn out when the oil level fell below them. Fuel usually consists of residuum or unsalable distillate, which, being quite light, flows by gravity to the burners and supplies an excellent fire which requires little attention from the stillman.

The residuum cooler is placed below the level of the still, so that the residuum flows into the cooler by gravity. To prevent ignition of the highly heated oil drawn from the still, a live steam pipe allows the air in the cooler to be displaced by steam. In case asphaltum should harden in the cooler, a method of melting the mass is necessary, either by fire or superheated steam.

The vapor pipe from the stills ranges in diameter from fifteen inches for a one thousand barrel still to five inches for a one hundred barrel still. This pipe is carried to the condenser, usually an iron or wooden box filled with circulating water and containing the condensing coils. These diminish from the size of the vapor pipe to one-third its diameter. Usually seven square feet of surface are provided to condense and cool each barrel of oil in twelve hours. At the end of the condenser an automatic trap resembling a plumbing trap separates the oil from the gas usually attending it. The oil is then conveyed to a building called a "tail house," where the stillman, by a convenient device, diverts the flow of oil from tank to tank during the progress of the run. Here, also, are located the hydrometers and testing instruments used by the stillman.

The methods of refining vary with the crude oil used and the character of the products produced. Great secrecy is preserved by refiners concerning their methods, but the operations are so very simple compared to many of the processes daily carried out in technical chemistry that it appears refiners mystify a mere nothing in order to make their accomplishment seem profound. Care and cleanliness are required in the handling of the oils and every attention must be given to the distillation, in particular. The entire refinery operation reminds one strongly of the ordinary manipulation processes in organic chemistry, and it is found that refining petroleum is as easy to carry out as is the purification of some of the simplest compounds as prepared in the laboratory.

The oil as it runs from the still is separated into a limited number of fractions. The light oil which

distills over first, is separated for redistillation: As the distillate running from the stills gradually becomes more dense and rises in boiling point it is changed from tank to tank, the amount allowed to run into each tank being determined by the market demand for that particular distillate, both as regards quantity and quality. Certain of these distillates may be sold as such, hence the specific gravity of the oils running into the tanks containing these distil-

grades are: gasoline, benzene, coal oil, pyronaphtha or engine distillate, gas distillate, neutral oil, lubricating oils. These run off successively in the order named and following each other without perceptible breaks. Indeed, the point where the distillate is changed from one tank to the next is perfectly arbitrary and is determined at will by the refinery superintendent or foreman, to suit the quantity or quality of production.

So far as actual operation is con-

proceeds. When a test sample of the residue in the still shows the nearly proper consistency in cooling in water, the fires are slowly decreased and gradually stopped, while the remainder of the run is finished by the steam and the hot furnace walls. Steam is gradually closed off as the flow of distillate slackens and is finally stopped. The time of distillation proper ranges from twelve to eighteen hours, according to the size of the still. After the process is completed, the residuum is allowed to remain in the still from two to five hours and is then drawn into the cooler. The stills are allowed to rest for a short period and are then refilled for the next run. The entire operation may take either twenty-four or forty-eight hours, according to the size of the stills.

The lightest portion of the distillate, including the gasoline, benzene, coal oil and tailings of higher oils, is usually redistilled in order to produce lighter-colored products. The lightest portion of this second distillation may be redistilled in a column still similar to the alcohol stills, in order to obtain gasolines and benzinnes of more uniform composition. The coal oil is usually obtained entirely from this second distillation. Other crude distillates may be redistilled, particularly the last distillates, to secure lighter-colored lubricating oils.

Owing to its constitution, California petroleum does not reach a temperature of decomposition until the heavier oils are distilling. Eastern oil undergoes decomposition at the high temperature required to distill coal oil. In the east the decomposition is allowed to proceed and the decomposition product is coal oil. Here decomposition or "cracking" is not encouraged, since it does not improve the heavy oil and also causes a loss of fuel, as the process is carried out in unjacketed stills with long-continued action of small fires.

The gasolines, benzinnes, coal oil, some of the engine distillate, the neutral oil and lubricating oils are pumped to the agitator plant. The agitation, shown in Fig. 2, is a vertical cylindrical tank with conical bottom and lined with lead. The capacity ranges from twenty to one thousand five hundred barrels, according to the size of the refinery. A compressor delivers air through a central pipe reaching to the bottom, and thus produces agitation of the oil and reagents. Acid and soda are pumped or blown over the top edge. A rose nozzle at the top is provided for washing. At the bottom the acid and soda may be withdrawn by a large three-way cock. The water overflows at a side pipe in such a manner that it is removed as quickly as it collects at the bottom, and still if the stream

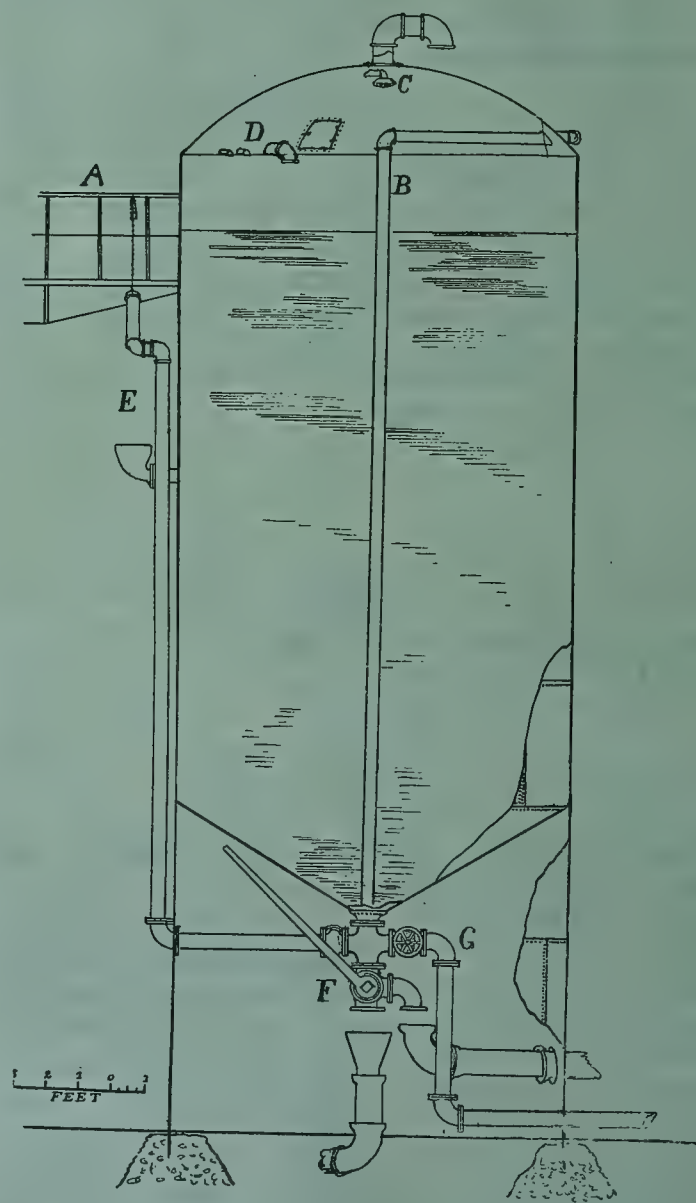


FIGURE 2—AGITATOR.

A. Bridge. B. Air pipe. C. Water spray. D. Acid soda and oil pipes.  
E. Water overflow. F. Drawoff cock. G. Emptying pipe.

lates must give an average specific gravity conforming to the demands of the refinery's customers. If the oil is to be redistilled, the specific gravity of the first distillate is of small importance provided that the oils to be removed on redistillation are run into the first distillate. Any detailed scheme of separation of distillates would be out of place here since each refinery employs a different system, producing the oils it can sell most readily. Roughly, the market

cerned the stills are pumped nearly full and the fires started. In six or ten hours the gasoline begins to distill over and the distillation is allowed to proceed slowly until the stills are nearly half emptied. The fires are then slackened, and when the distillate has decreased its flow sufficiently, steam is admitted to the still in a small quantity. After the first gush of oil has subsided the fires are again increased and the flow of steam is increased as the run



of water is stopped at the top the oil cannot escape owing to the balancing water column in the pipe. The finished oil may be pumped out by a suction line connected from the bottom of the agitator to a pump.

In operation the agitator is filled to within two feet of the top and sulphuric acid of ninety-eight per cent or higher purity, is added in successive portions, each portion being withdrawn before the next is added. The first portion removes the water which may be present and, when not much diluted, often acts on the oil, becoming dark and thick. Succeeding portions act on the unstable products of the oil and remove them. Sulphurous acid is evolved and

is neutral, to test reagents. After settling the last traces of water which may require two or three days, the oil is ready for marketing.

The chemical treatment of the other oils is similar. Gasoline and benzine require as little as one-half per cent by weight of acid to effect complete chemical reaction with all undesirable substances held in solution. Some lubricating oils require over fifteen per cent of acid and even then will react with a further quantity. The light oils are usually allowed an excess of acid, while the heavier oils, owing to their large content of unstable compounds, are never completely freed from these compounds by the acid treatment. It

oil odor, a slight blue florescence, is perfectly stable toward oxidation, is permanent in color and is of satisfactory fire test. Indeed, it is so clear and colorless that small objects on the bottom of a tank may be seen in their true colors through a layer of coal oil twelve feet deep. Lubricating oil before treatment is almost black, foul smelling, foul tasting, often deposits muddy sediment and oxidizes to a hard skin on glass containing vessels, is corrosive toward iron and is thoroughly unfit for lubrication. After treatment it is yellowish or red, pleasant smelling, sweetish to the taste, deposits no sediment, is non-corrosive and thoroughly fitted for its purpose. The finished oils, whether dis-

ses of one of five hundred barrels capacity.

A large amount of fuel oil distillate is produced which at present is sold for little more than crude oil prices. At present this production is profitless, but is necessary.

Asphalts may be produced at reasonable profit since it is possible to refine oil holding 40 per cent of asphaltum. The asphaltum is sold at six times the price an equal bulk of crude oil, and the distillate for at least as much as an equal volume of crude oil. This makes a profit of 300 per cent on the material handled. Transportation is eliminated by locating the refinery at the well. Labor expenses, fuel and admin-



Plant of the British-California Refining Company, at Los Angeles.

the oil becomes red-colored and the acid thick and tar-like. Finally, if the process be carried far enough, as it often is with coal oil gasolines and benzines, the acid no longer has any effect on the oil. The acid is then thoroughly settled out and withdrawn. The oil, if coal oil or a lighter product, is left pinkish, but soon becomes dazzling white under the action of the wash-water from the rose nozzle. After settling and withdrawing the water, the oil is subjected to treatment with caustic soda solution in sufficient quantity to neutralize the remaining sulphuric acid and to remove organic acids present in the oil. Removal of soda and soapy matter is followed by thorough washing, until the oil

is very simple to obtain satisfactory results with light oils, but the heavier oils are difficult to settle after treatment with soda and washing with water. Settling of lubricating oils is generally effected by heating in shallow tanks or sometimes by mixing with absorbent earths and separating with a filter press.

The finished oils from the agitation department differ greatly from the crude distillates from the stills. Before treatment, coal oil distillate is yellowish, sometimes brownish, has a heavy black sediment, an unpleasant odor, is unstable toward light and oxidation and has a low fire test. After treatment it is perfectly clear, water white, has the pleasant coal

tillates from the stills or thoroughly refined oils from the agitator plant, are sold in cans, barrels, iron drums or tank cars, according to demand. Much distillate is pumped into the same cars from which crude oil has been emptied. Such distillate is used for fuel. In contrast to this, the chemically treated oil is shipped in thoroughly clean packages, occasionally in tank cars cleaned for the purpose.

#### CONCLUSIONS.

1. Regarding the refining question in general.—A refinery is easily killed by a larger competition. All refineries make about the same profit on the material handled but the labor expenses of a refinery of one hundred barrels capacity are over half the expen-

istration reduce the 300 per cent gross profit to a small but comfortable net profit.

2. Regarding the character of the products.—Benzines and gasolines from the Pacific Coast can always sell at the same price as Eastern oils of the same grade. Almost invariably the volatile oils are well made and well fill their purpose.

California coal oil has been condemned often and justly. It occurs in the crude oil in small quantity and the enormous profit in producing it has led to various means for increasing the quantity at the expense of the quality. The oil, as a result, has a bad odor, yellow color, smokes in the lamp and chars the wick, deposits

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Determines  
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sediment and is dangerous from its low fire test. California petroleum can be made of high grade. At least one refinery in the State is operated under such conditions that its coal oil is not an important object of produce. As a consequence there is constantly produced a small quantity of the highest grade coal oil with high test, slight and pleasant odor, absolutely water white, free from sediment, neither charring the wick nor smoking in the lamp, and thoroughly suited to domestic use. This is an exception, since this oil even surpasses the best Eastern grades; but the exception proves the possibility of a good California coal oil when conditions are favorable for its production.

Lubricating oil produced from California crude oil is inferior to the Eastern lubricating oil. The oil produced on this coast has a tendency to gum on exposure to the air and loses its viscosity with rise of temperature more quickly than does the Eastern oil. Moreover, it will not wear so long under the system of filtration and recovery practiced in many engine rooms.

Asphaltum is finding an extended use as a paving material, as a dipping material for water pipes, for preserving wood work and in roofing construction. It is a peculiar product of our own, is as good as the best mineral bitumen and sells at a lower price than any other competing product. It will in time be a standard article throughout the entire United States.

General—A promising field for chemical research will be found in the acid and soda sludges. At present the acid is recovered in but one refinery. Here the oily matter is merely separated from the acid and burned for fuel, while the acid is reconcentrated. Most of the refineries settle the soda waste and save a portion of the alkali, but the soapy matter is thrown away. These wastes probably contain bodies valuable for many purposes but as yet little chemical research has been done in them.

Another problem is to produce benzine and toluene directly from the naphthene oils. Only a short step must be taken to accomplish the transformation and a process for this purpose would be a great stride towards duplicating on our coast the greatest chemical industry of the world, the aniline and coal-tar dye manufacture.

Thus the conclusion comes to us that our few years experience in petroleum on this coast has brought about a very strict comparison between Eastern and California petroleum products. The petroleum products are different but in many cases California can reach the high Eastern standard. In

some cases our products are inferior, but we must remember that in asphaltum we have a prospect which will overshadow many shortcomings. The optimists among the technical chemists may hope for many important syntheses to be made from various bodies which are even now known to occur in California crude oils.

### OIL IN BR. COLUMBIA.

#### How Oil was Discovered in the British Possessions.

The discovery of oil in South Kootenay near the international boundary line is an interesting story. The discovery was made by a Sarnia man, who went to British Columbia during the gold excitement at Rossland about six years ago. He was an expert in oil, having been brought up on an oil farm in this country, and being a man of more than average shrewdness, he was not long in Rossland before he discovered that it was not a "poor man's territory," and that gold mining there could only be accomplished by a large expenditure of capital. With an explorer's outfit on his back, he set off from Rossland towards Fort Steele, on foot, with the intention of exploring the river and creek bottoms for gold deposits that could be washed out by hand—placer mines, as they are called in that country. In the course of his lone wanderings he came upon deposits of petroleum in pools and his practiced eye at once recognized the nature and value of the find. These oil deposits were located far from any of the known trails, and the discoverer believed that he was probably the first white man to set foot upon the territory. The history of his efforts to get his claim recorded in the mining department of the British Columbia government at Victoria would take too long to relate. He was sent from one official to another. He was told that the lands he wished to stake out were not open to location, and he was also told that they were railway lands set apart for grants to railways, and at every turn he found himself blocked. Strangers sought his acquaintance, and tried to extract from him the nature of his discovery, but he kept his secret. Finally, becoming discouraged, he returned East, and while here was requested to pay a visit to the Canadian Pacific railroad officials at Montreal, transportation and expenses provided. There he was informed that the claims he was seeking to locate in South Kootenay were on lands belonging to the company, and if he would disclose to them the nature of the discovery he had made, they would admit him to a fair share of whatever profit might arise from working the claims. He saw he was up against it, and

that without the co-operation of the Canadian Pacific railroad he could do nothing, so he told them what he had found and placed himself in their hands. For several months he remained in Sarnia, awaiting instructions, and last summer left for British Columbia, presumably to pilot an expedition to the new oil fields. This, says an Eastern exchange, is how it came about that the Canadian Pacific railroad traded off a vast acreage of its land grant in other parts of British Columbia for an equal acreage in South Kootenay.

### ALASKA OIL.

#### Los Angeles Man Says Kayak Oil is High Grade Product.

A dispatch from Tacoma says that J. R. Boat, superintendent of the Union Consolidated Oil company, departed last week for the Kayak, Alaska, oil fields. Major H. H. Russell of Los Angeles is general manager of the company, which has holdings in Ventura, Santa Barbara and Los Angeles counties. The company has also acquired large interests in the Kayak district, which Boat intends to examine. He says:

"We have had our expert, F. L. Aretta, in the Kayak field for the past year. His reports are very favorable. I have been directed to examine the field to confirm

Aretta's report. We had 200 gallons of Kayak oil thoroughly tested at our refinery at Los Angeles. It carried more illuminant than any other oil in the United States. It contains from 72 to 75 per cent of illuminant in the shape of kerosene, naphtha and gasoline. On this account oil men of California look with a great deal of favor on the Kayak section."

Boat will remain in the north two months. If satisfied with the outlook he will wire orders for the shipment to him of two complete drilling rigs now boxed up in California awaiting transportation. On their arriving he will begin drilling on 20,000 acres of land owned by his company. His object will be to secure an output of oil that will warrant the building of a refinery to manufacture kerosene and other grade products.

#### Drawing on the Reserve.

During the half year the Indiana and Ohio Trenton limestone fields have produced approximately 13,000,000 barrels of the oleaginous fluid. The shipments amounted to close to 15,000,000 barrels, showing that it was necessary to draw on the reserve stock. The shipments from Indiana alone were close on to 6,000,000 barrels, while the production was approximately 5,000,000. The last half of the year is expected to make an even better showing.

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## STANDARD BUYS PINAL OIL.

### Make Contract to Take 120,000 Barrels From That Company.

#### Prices Depend Upon Gravity of the Oil—Standard to Erect Large Tank at Port Harford—Pinal Pipe Line a Success.

The Pinal Oil company has sold to the Standard Oil company 120,000 barrels of oil, says the San Luis Obispo "Breeze," the delivery to the last named company to take place as soon as a tank at Port Harford can be built to accommodate the oil.

The contract with the Standard people is made on a basis of a 23 per cent gravity oil and the price to be paid will be regulated

pany to pipe the oil to Graciosa station and from there to Port Harford it will be handled by the Standard company over the narrow gauge line and in cars provided by the Standard.

Down at the wells everything looks bright. No. 1 is being deepened and flows to some extent, but there is too much gas present to do much with this well just yet. Work will go on, however, and as

sessions. There is all kinds of good luck in store for the holders of this stock.

The Pinal company's pipe line, says the Santa Maria "Times," was completed last week and the test proved it to be a grand success. Without a pump of any kind, and by natural gravitation alone, the oil took just three hours to go through the five miles of pipe.

The line will easily carry one thousand barrels of oil a day. The thousand barrel tank at Graciosa is now full and as soon as transportation facilities can be obtained from the railroad the oil will be shipped.

#### NO OIL FOR YOSEMITE.

Roads in the Valley too Sandy for Successful Treatment.

Commissioner of Highways Nathaniel Ellery has returned from his official visitation to the Yose-

of the turnpike this side of Wawona. The roads are not sprinkled in the valley. It would be difficult to do it with much success, because the sandy soil does not invite it; it retains the heat, and evaporation is almost instantaneous. Decomposed granite is found, but it did not impress Mr. Ellery as suitable for use in the locality.

#### Arizona Prospects.

That the Del Rio oil fields of Yavapai county will be developed is now an assured fact. The Yavapai Oil and Development company has been fully organized and ready for business. Regarding the indications for oil in the section north of Prescott, O. H. Jones, a California expert, who has looked over the fields says: "In company with Mr. Heslet, of Jerome, I examined a large section of country in Yavapai county, and am happy to report that I found that the oil bearing formations in Yavapai county are very extensive and indicate an enormous deposit of petroleum of an excellent quality. I traced one belt from ten to fifteen miles to an outcrop, where we found sand rock that was so saturated with petroleum that it smelt like a can filled with kerosene. Between the Colorado river and a point east of Ash Fork there are three or more belts that extend across the territory in a northwesterly and southeasterly direction, in which the oil bearing formation consists of shale and sandrock similar to that found in Ventura county, California, and other California fields."

#### In Colorado.

Another good strike has been made on the property of the Keystone Oil company, in the Florence, Colorado field, by the Columbia Crude Oil company. At a depth of 2,300 feet the drill broke into the fluid that quickly raised in the well to a height of 1,500 feet. The Columbia Crude Oil company has another strong well on this property, while the Keystone, owner of the tract, has several.

Gold and oil appear to be co-existent in the western part of America, says an exchange. California became famous for its placer gold deposits, but lately the oil derrick has become the conspicuous feature of the landscape. The Klondyke forced Alaska into the focus of the public eye, but through the recent discovery of oil Alaska may yet become better known for its oil fields than for its gold deposits. An expedition was recently fitted out in San Francisco and dispatched to the Alaska fields to thoroughly investigate their extent. A tank vessel was sent along to bring back the first cargo of Alaska crude.



Atlantic & Pacific Well No. 1, Uinta County, Wyoming, Which Recently Made the Good Strike Spoken of in our Wyoming Letter on Page 10.

by a sliding scale or graduated list as the oil proves of a higher gravity.

The oil output of the Bakersfield country will vary according to gravity from 19 to 30 cents a barrel. The gravity of this oil runs at about 23, while the poorest oil that comes from the Pinal company will average a gravity of 27. The price to be paid for oil of this gravity, the convenience of the location and the facilities for handling same considered, will be about three times as much as is paid for the Bakersfield product, or about 50 or 60 cents a barrel. Some of the finer oils from the inside fields, however, will bring as much as 30 cents a barrel, but this is by no means a general thing.

The Standard company will go to work immediately on the big 30,000 barrel tank which will be built for the reception of the oil. It is the intention of the local com-

soon as No. 1 is completed work will go ahead on deepening and improving No. 2. Well No. 3 is so far the best well and the big order from the Standard will be filled from this well. No. 4 has just been commenced and every indication tends to show great promise for this hole.

It is pretty well understood that this offer of the Standard company is only a preliminary one and will be followed right up. In the event of the wells proving as good as No. 3, and the price of this oil advancing, it is the intention of the Pinal company to extend the pipe line to the beach where vessels can load readily and without the necessary expense incidental to handling the output of the wells over railroad lines.

The fact that the Standard Oil company was desirous of closing these negotiations tends to show the real value of the Pinal's pos-

mite valley to examine into trail, road and bridge conditions at the instance of the Yosemite Valley commission.

Mr. Ellery says he found these conditions anything but encouraging. The roads in the valley are dusty and often sandy, and very much in need of proper treatment. There is no trap rock available, only granite in the valley, which, except it be hornblende, is unfit for macadamizing. The question of oiling roads in the valley received his consideration, and he inclines to the belief that the soil is suitable for that process, but almost a prohibitive obstacle is the cost of getting the oil into the valley.

On the Raymond highway the stage company has successfully oiled twenty miles—that is, under the conditions quite good oiling has been done; it is certainly, he says, an improvement. The company is about to oil four miles



# PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By the California Petroleum Miners' Association.

W. B. WINN, Editor and Publisher

OFFICE AND EDITORIAL ROOMS

318 Pine Street, San Francisco

Telephone, Bush 176.

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Entered in the Postoffice at San Francisco, Cal., as second-class matter.

The PACIFIC OIL REPORTER will be found on sale at the following places:  
The Temple News Stand, Chicago, Ill.  
The Equitable News Stand, Denver.  
P. O. News Co., 178 Dearborn street, Chicago.  
Southwestern News Co., 410 East Ninth street, Kansas City.  
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SATURDAY : . SEPTEMBER 12, 1903

William Bowers Winn died at his home in Berkeley at 10:35 o'clock Wednesday night, the 9th. As noted in these columns from week to week, Mr. Winn had been afflicted for some time past with an acute inflammation of the ear drum which seemed to baffle the skill of the best physicians to overcome. He had been discharged from the McNutt hospital in this city only last week, the symptoms being of such an encouraging nature as to lead the attending physician and his friends to believe that the malady had been overcome. On Monday last alarming symptoms were again manifested and so acute was his pain and suffering that opiates were administered. A consultation of local physicians was held and it was decided that an operation was the only thing that would save his life, but by this time he had lapsed into unconsciousness and his weakened condition and the high fever rendered all thought of a successful operation out of question. He lingered in great pain and distress until Wednesday night when the end came.

Mr. Winn was a native of Massachusetts, being born in Salem in that state forty-five years ago.

He was a graduate of Columbia college, being a classmate with President Benjamin Ide Wheeler, of the State University of California. He was possessed of fine intellectual attainments and was a man of the highest integrity and honor.

He came to California about fifteen years ago and during all of his residence in this State was connected with various newspaper enterprises, in some instances as proprietor and in others in an editorial or reportorial capacity. At some time or other he had served on all of the great San Francisco dailies.

Mr. Winn was most widely

of every sort and his endorsement of an enterprise or proposition carried great weight among honest men in every walk of life.

He leaves a wife and four children to mourn his untimely death.

The paper will continue to be published as usual, further notice of which will be made in subsequent issues.

The utilization of rock oil or petroleum, and the boring of the first well by Drake in 1859, were events of the utmost importance in the history of mining, and to the march of civilization.

The oozing of mineral oil from

An oil which could be used to replace the vile-smelling, greasy whale oil in hand lamps was the great desideratum. Its use as an illuminant had been suggested as early as 1828.

The experiments promised success. A clarified distillate was obtained. Burners and chimneys of glass were devised. Perfect combustion and a brilliant light were secured. The next question was as to quantity. This was answered by the drill of Drake. The industry of petroleum was born. It has been said that "the discovery of Drake not only opened the door to material wealth, but to new avenues of human activity, mental and manual."

Oil in quantities in the remote forests of Pennsylvania required new methods, new machinery, new methods of storing and of transportation. Compare for a moment the movement of oil in barrels, on wagons and flat boats down the creeks to the river, with the magnificent pipe-line transportation of today from the wells to the seaboard. Compare the original price of \$20 per barrel for Drake's crude oil with the price of one dollar at the end of the century. Compare the cost of refined oil in 1860 at from 70 to 75 cents per gallon, with its present price of about 10 cents per gallon.

One oil-producing district after another has been added to our sources of petroleum, and of its accompaniment, natural gas. Both have been utilized as fuel and in metallurgy. The industry of iron and steel has been modified, almost revolutionized, by their use.

Oil is being substituted for coal upon some of our railways and at our mills for reducing ores. It is destined to play a most important part in the smelting of ores.—Abstract from an address delivered to the Missouri School of Mines by Wm. P. Blake.

## Bunting at Coalinga.

This morning when the Flyer pulled in from Goshen it had John A. Bunting's private car, El Freda, attached. The car was sidetracked here and at 10:35 left with the train for Coalinga where the party, with Mr. Bunting, consisting of C. N. Kilbourne, G. A. Scott, C. F. Davies, F. W. Bartlett, E. P. Fallis and W. J. Newport, J. B. Newport and G. E. Shore, of this city, will spend to-day and part of to-morrow looking over the fields. The gentlemen, excepting the local parties named, were the men who recently purchased a controlling interest in the Esperanza Oil company. All of them are extensively interested in the Kern River fields and Mr. Scott told a Sentinel man that they all considered the Coalinga field to be an all right proposition.—Hanford Sentinel.

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WILLIAM B. WINN.

known, however, through his connection with the oil industry in his capacity as editor and proprietor of the PACIFIC OIL REPORTER, which he established in November, 1899. His work in connection with the oil industry on the Coast is well known to the readers of this paper. No man had a stronger faith in the ultimate prosperity of the industry than he, and no man contributed more toward that end. He had a wide personal acquaintance among oil men on the Coast and was held in high esteem by every one. He was the very soul of honor. He denounced schemers and tricksters

the ground, and its diffusion upon the waters of the creek had long before been observed. It was collected in small quantities for years and sold as a medicine. The water was either skimmed, or the oil was absorbed by blankets spread upon pools of water in tanks or trenches or in salt wells. As early as the year 1845 the crude oil from Tarentum had been used as a lubricant in the Hope cotton factory. Attempts were soon after made to refine the oil for illuminating purposes. The younger Silliman at Yale was called upon to make an analysis and to advise respecting its treatment. The world was sadly in need of light. Experiments upon volatile oils distilled from coals had been numerous.



## NEW OIL ENGINE.

### Great Improvement Claimed Over Existing Types.

In a type of oil engine which has attracted much favorable notice, the oil is vaporized and ignited without the use of any external source of heat. The main drawback has been that the engine would not run indefinitely with light loads, owing to the explosions not occurring with sufficient frequency to keep the igniting portion at a sufficiently high temperature. A modification of this type of motor, just brought out by the Britannia Company, of Colchester, England, is claimed to be free from this drawback. The vaporizer is arranged as usual at the back of the cylinder. On the suction stroke a vapor valve is opened by the cam shaft, and through this valve air is drawn into the cylinder through the vaporizer, into which at the same time a little oil is sucked through an automatic valve. This mixture of oil and air is in itself too rich to be explosive and the main supply of air is drawn through a separate air valve into the cylinder. Two passages connect the vapor valve with the cylinder. One of these is large and straight, while the other is narrow and U shaped. The lower portion of the U contains the igniter—a piece of metal having ribs, which enables it to absorb heat readily when the explosion takes place. This piece, therefore, becomes and remains red hot, while the rest of the vaporizer is only at a black heat. The vapor which is drawn through this igniter on the suction stroke is far too rich to burn, but on the compression stroke air is forced back into the igniting piece and provides the necessary oxygen for the vapor already there to ignite. None of the exhaust passes through the igniter, which is consequently not cooled down in the case of a missed explosion. The proportion of oil and gas used is regulated by throttling the air supply. As already stated, part of the air is drawn through the vaporizer and the rest through the air valve. If the admission to the latter is throttled a greater portion of the air used will be taken through the vaporizer and will claim that, once started, the engine will run absolutely without attention for several hours.

The deposition of soot on the tubes of a boiler constitutes perhaps the great heat waste in burning coal, and coal can hardly be burned in a manner to prevent this. Until the ashes from the burning of coal are removed from the vicinity of a boiler, there is a constant deterioration of any metal with which they come in contact.

It is possible, in burning oil, to dispense entirely with the temperature changes, there are no ashes to remove, and careful burn-

ing of the oil leaves very little unburned carbon.

The burning of oil entails a minimum of expense for operating.

The oil may be burned with the use of either steam or air, or a combination of the two, to atomize it and to provide sufficient oxygen for combustion.

In selecting an oil burner that uses steam to atomize the oil, care must be taken that the quantity of steam be not too great a percentage of the total amount generated.

If the plant where oil is burned uses pneumatic tools, it may be more advantageous to use air.

Where a forced draft system of combustion is used, a combination of steam for atomizing and air for combustion may be used, and this combination gives results that have probably not been exceeded for economy.

In a plant of over 4,000-horse power, using steam to atomize the oil and air at a pressure of three inches of water for combustion, there is obtained regularly a net evaporation of 141 pounds of water from and at 212 degrees per pound of oil. The tubes are sponged in this plant once a month as against every day when coal was used, and no repairs to furnaces or tubes have been necessary after seven months.

There is a considerable difference in the price of oil, depending on the distance it has to be carried, and while the price may be prohibitive where the distance is great, the fact remains that oil is largely superseding coal as a fuel, and when the economy of operation where oil is used has been continued for a sufficiently long time to have the results studied and diffused, there is no question

that oil will be still more generally used as a fuel.—By John F. Rowland, Jr., Technical and Engineering Section, Franklin Institute, in American Manufacturer.

## WELL NOT BEWITCHED.

### How a West Virginian Oil Man Removed the Spell.

Silas Rex, of near Fairmont, West Virginia, owns perhaps what is the richest land in Marlon county. On it are several wells, and one among them is the celebrated Rex well that has been falling to streak after streak of bad luck and which has been seriously delayed ever since the day that boring was commenced.

Rex believes in witches, and he attributes the cause of the ill luck of his well to the influence of them. Time after time he has amused his neighbors by referring to the witch and her power, and last Thursday, he sent his team across the country and brought to his farm an old man who also believes in superstition. Together they planned how to rid the well of its hoodoo, and this is how they did it:

The old fellow drew on yellow paper the pictures of six witches. This paper was laid under a stone in the cellar while the two melted up half a dozen silver spoons and moulded the metal into bullets with which to load a gun. Then the witches' pictures were tacked against a dead tree and each was pierced with a bullet.

According to the men, the work was well done, and Rex's old companion has returned to his home while his friend tells that the hoodoo has been effectively driven from the well, which is believed to be the best paying streak in the region.—Sistersville Review.

## NEW OIL COMPANY.

### Will Develop 1,000 Acres of Land Adjoining the Pinal.

One of the strongest oil companies yet to come into Santa Maria will begin operations in a very short time, and in fact the lumber is already on the ground.

The new company is known as the California Coast company and is composed of some of the best oil men in America, including such prominent men as Captain Matson, president of the Pacific Oil and Transportation company, who handle most of the Western Union oil and refine it at Alcatraz.

Drilling will begin on the Drumm property, and when the first rig is properly started several more will begin operations on the Bradley and Tunnel tracts.

The company has nearly 1,000 acres of the very choicest oil properties in the valley, and those who are fortunate enough to hold stock in the same are to be congratulated, as the property to be developed adjoins the proven territory of the Pinal and Loma companies.

The corporation is very exclusive, there being no stock for sale at all, the money for developing the property being put up by the shareholders in the company. The directors are Captain Matson, T. D. Wood, R. H. Herron, L. A. Crandall and Irwin Herron, all prominent men in financial affairs and men who know what they are doing when they sink wells for oil. Their advent is of great significance, as it means much in developing and broadening the oil area of the Santa Maria valley.—Santa Maria Times.

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HANFORD



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### ALAMEDA.

The first oil was placed on the Lake Chabot boulevard last week. It is intended to oil the whole road thoroughly, and to make it one of the finest drive-ways in the State. To afford the oil to become properly assimilated by the dust, the highway is to be closed to travel for fifteen days. Supervisors who have visited the southern part of California and observed the roads which have been treated with oil to keep down the dust are confident that Alameda county thoroughfares will in time be all oiled instead of watered, as has been the mode in the valley sections. The hill roads have neither been oiled nor watered, and therefore are covered with dust from the time the spring rain ceases until the first storm of winter.

### ALASKA.

A dispatch from Tacoma this week states that E. H. Wagner of San Francisco, a mechanical engineer, who superintended the change of seven of the Northern Commercial company's steamers from wood to oil burners, describes the success of the plan at Dawson. He says that oil is proving a success as a matter of financial economy and less labor is required in firing. Most important of all, long and frequent stoppages for fuel are cut out in journeys up and down the river, where time is a most important factor during the short open season. The Northern Commercial company has located its distributing tanks at St. Michael, Andreafski, Fort Gibbons and Circle. Bakersfield oil is carried to St. Michael by the steamer Rosecrans, which has landed one cargo and will take another this fall. The oil is carried up river on heavy barges equipped with redwood tanks. The steamers so far equipped with oil burning apparatus are the Sarah, Susie, Hannah, Louise, Bella, Leah and Herman.

### COALINGA.

The Mercantile Crude Oil company is ready to spud in on No. 3.

McClurg & Claypool are rigging up No. 4 on the east side of their lease, bordering the Maine State Oil company.

Mr. John A. Bunting who recently purchased the controlling interest in the Esperanza Oil company, spent a day in the field last week.

C. R. Baker is building a large reservoir on his lease on section 23, 20-14 for the storage of the oil from his well and that of the St. Paul-Fresno Oil company.

Penn-Coalinga No. 2 has been packed and now is flowing again. For some time the well has been on the pump, but since it has been packed its production has almost doubled.

The Fresno-San Francisco Oil company is putting packers into its wells. From the way wells have been made to flow in the west side of the field, it is expected that No. 3 will flow.

The Maine State Oil company spudded in on No. 6 last week. The company expects to drill several other wells on the east side of its lease, where, according to the Commercial wells, a lighter gravity oil is found.

The well of the New San Francisco Crude Oil company that was brought in last month, and reported to be pumping 150 barrels per day, has been packed, which caused the well to flow at the rate of at least 300 barrels per day.

Dan'l Finn returned from Coalinga

Monday and says that the fourth well of the Hanford Oil company is finished. It is 1,080 feet deep and is probably the best well of the four that company has bored. The exact amount of the production has not been ascertained as the pumps will not be at work on the well until to-morrow.

The Coalinga Consolidated Water company has removed its pumping plant a distance of about 200 yards nearer to the wells. The water plant is now more compactly and conveniently located. The change has necessitated a shut down a little time, but no serious delays were caused to the operators for shortage of water.

Section Seven Oil company's No. 2 well is finished at a depth of nearly 1,300 feet. If the production of this well will equal that of No. 1 Section Seven Oil company will be by far the largest producer on the west side. No. 1 produced as high as 1,200 barrels in one day last week. No. 3 is now being rigged up to begin drilling at once.

Mr. Julius Fried has just returned from the East where he organized a company which will operate on the SE¼ of the NW¼ of section 34, 19-15, and bears the name of the Westmoreland-Coalinga Petroleum company. Preparations are now under way to begin work in the near future. The land of the company is in close proximity of the California Oil Fields, Limited and Oil City Petroleum company, and there is no doubt but that the company will make a successful strike of a high grade oil.

### COLUSA.

It is reported that the Minor Oil company resume drilling by 15th.

A large quantity of material has been hauled away from the Bear Valley company's well, work having been abandoned for lack of money.

W. E. Youle arrived in Arbuckle from the west country last week. He sold his horse, buggy and harness and departed on the south-bound train.

Director Duffield of the Chehalis Oil company reports drilling started the 27th of August. The hole was then 480 feet. Casing is being put in to shut off the water.—Arbuckle Independent.

### HALF MOON BAY.

The Tesla Oil company, drilling just east of Half Moon Bay, passed through a very good showing of oil last week; considerable oil has accumulated in the hole, which is very encouraging.

Well No. 7 of the Guiberson company passed through a stratum of 52 gravity oil, which makes the well good for several barrels per day, the exact production is unknown at the present, but the owners are jubilant as the well was drilled in about four weeks. Other wells will be drilled immediately.

Mr. J. E. Kerr, of San Francisco was on the property this week and will start the drilling of another well within a very few days. Also another rig will be put to work as soon as possible. Mr. Kerr has the utmost confidence in the ultimate profitable result of drilling in this territory and he has already personally spent a great many thousand dollars. He has determined to put down a number of shallow wells as soon as possible.

The High Gravity Oil company had a great celebration last Saturday night. They have had a long, hard fight to ex-

ceed four weeks in recovering their fishing tools, and they were so jubilant over the result that they gave all the neighboring companies an invitation to join them in a "high jinks" to celebrate the event. They gave a bountiful spread with liquid refreshments and of course everybody had a good time. They have gone to drilling again with good prospects.

### KERN.

The Associated now finds its water supply not only equal to but in excess of the demand. Formerly the water was pumped from the wells into the pipeline for conveyance to where it was wanted and this proved unsatisfactory. The plan now being used is the erection of large tanks into which the water is pumped for storage before passing into the pipes.

One 2,000-barrel tank has been erected at the Reed pumping plant near the river, where the water is obtained. Four new wells are now being drilled here and a four-inch pipe-line has just been completed to the Canfield lease—a distance of about four miles. This is in addition to the line recently put into the San Joaquin lease. The tanks are now all filled and the supply exceeds the demand for the first time in about a year.

The Argentine Oil company, a Missouri corporation, with headquarters in Kansas City, filed its articles of incorporation last week. The incorporators and directors are A. A. Freyman, McArthur Long, C. O. Filkins, M. R. Filkins and J. R. Reese, all of Kansas City. The capital stock is \$500,000, of which all has been subscribed, 249,800 shares being subscribed by J. R. Reese, the other incorporators owning fifty shares each. The company recently acquired land in the Kern River field, where it will operate.

### LOS ANGELES.

In the Los Angeles field things continue to run along much as usual, the amount of work in deepening being much in excess of new work, which is very limited. Within the last two weeks several properties have changed hands, but that in itself gives no assurance of increased activity as the wells taken over, with perhaps one exception, are fair investment property. The Boylston company, a new concern, has taken over the holdings of the Dividend Oil company. There are fourteen wells, of which nine are said to be producing about 1,000 barrels a month, in the middle eastern field in Boylston avenue. All these wells are capable of being carried down into the second sand.

### SANTA BARBARA.

A report states that a new company has entered the Sunset field known as the Transport Oil company. The proposition is backed by millionaire Titus, who recently was in this valley, and also by the Midland Pacific people, who contemplate constructing a railroad through this valley shortly, from Bakersfield to the coast.

The Brookshire company's directors will hold a meeting to-morrow to decide what course to pursue in regard to the inexhaustible supply of water that has been struck in their well. Water being more valuable than oil in the immediate vicinity of the oil wells, it is very probable that the company will utilize the water for supplying the neighboring wells, and sink a new well for oil.

We are pleased to state that the Graciosa Oil company, who for the past few years have been patiently and persistently drilling away on the Captain Harris ranch, have at last been rewarded with a good well. Although dabbling in seepage for a long time, the real oil was not found until this week. The product is of very high grade and was struck at a depth of more than 2,500 feet. Shortly

after striking the oil one of the employees carelessly approached the well with a light, causing the strong flow of gas to ignite. No damage, however, resulted, as the flames were quickly extinguished. The new well proves up another great stretch of territory, which practically proves that oil exists in this part of the county from the coast to Garey.

### WYOMING.

Mr. J. S. Atherly, of San Francisco, visited the field this week. Mr. Atherly expresses himself surprised at the progress made since his last visit a year ago. Mr. Atherly has interests here which he will develop at once.

Mr. J. E. Stimson, official photographer of the Union Pacific Railway company, has been through the oil fields the past week making views for the St. Louis exposition. The views are made in their natural colors and will do much to show up the oil field.

Messrs. R. V. Ellis, E. A. Clark, J. P. Augsbury, J. A. Chancellor and A. B. Butler, who are the representative officers of the Atlantic & Pacific Oil company and the American Consolidated company arrived here from San Francisco, Cal., this evening. It is understood the gentlemen are to decide on what development they will do on their Spring Valley leases the coming fall and winter. They each and all expressed themselves as more than pleased at the rapid progress made in the district.

The American Consolidated company are busy erecting derricks, three on section 23 and two on section 14 are in the course of erection. They expect to be running four new strings of tools by the first of October. They have experienced considerable trouble in shutting off the water in well No. 3 on section 14 and have made very slow progress. For a time it looked as if they would have to abandon the well but now believe they have the water effectively shut off and hope to reach the oil sand in about ten days.

Two new companies have entered the field in the past few days. One of them, the Grand Rapids-Spring Valley Oil & Mining company, will commence building their first derrick this week, which is to be located near Aspen, a short distance from the big well of the A. & P. company on section 10. They are in the proven district and it is thought cannot miss the oil at the point they have selected to drill. The trustees of the company are: Hiram Collins, Grand Rapids; Walter H. Booth, Grand Rapids; Francis J. Lee, Grand Rapids; James E. Hardman, Grand Rapids; and Joseph U. Allard, Evanston, Wyo. They are capitalized for \$500,000. The second company is the Wyoming Petroleum company, capitalized for \$300,000, with E. A. Stratford, Joseph Chez, and Vaughn Hufford as trustees.

One good oil strike has been scored in the Uinta county oil field the past week. It is well No. 1 on section 26, owned by the Atlantic & Pacific Oil company and makes their fourth producer. The strike was made Tuesday night and started off at about twenty-five barrels. The well is located only about 500 feet from the well on section 23, brought in by the American Consolidated a week before. Workmen lost a bit in No. 3 well on section 22 the first of the week, just above the sand. They are still fishing. A fifth sand was reached in the A. & P. well No. 1 on section 10 this week at a depth of about 1,600 feet. There seems to be an indefinite number of sands in the field and this well, which is being made a test well to locate the strata, is looked forward to with much interest. As yet all of the wells have been completed in the second and third sand, and no well has ever been drilled



deeper than 1,500 to 1,600 feet. It has always been the opinion of geologists and practical men that the best results would be obtained by deep drilling and this well seems to demonstrate this theory. This company started spudding in well No. 4 on section 22 last Wednesday and will complete the well by October 1st barring bad luck and accidents. Three wells in this vicinity have been completed in less than thirty days and at a cost of less than \$3,000, which puts a black eye on the expensive drilling talk which is being circulated. Our best drillers say that with heavy tools and experienced workmen the above time and cost will cover most of the wells put down in Uinta county from this time on.

### INCREASED VALUB.

#### What the Oil Industry Has Done for Kern County.

Kern county was represented at a noon session of the State Board of Equalization, at Sacramento, last week, by J. M. Jameson, assessor, J. W. Ahern, district attorney, and H. A. Jaster, C. A. Canfield, W. S. Porter, supervisors. It was shown that there has been an increase in values in the last few years from the oil industry. Farm lands have suffered because of a lack of water.

W. S. Porter, manager of the Associated Oil company, gave a deeply interesting lecture upon earth oil, its sources, veins, etc., and went into elaborate details upon the subject, greatly interesting the members of the board. The witnesses held that the present assessment of the county is a good one and that there has been a healthy increase of nearly \$500,000. During the oil boom prices were much inflated. No new farming lands have been brought under cultivation since then, indeed, farming in Kern county is not as good as it was ten years ago. Much land has gone into government reserve.

Because of the great amount of building during the oil boom there has been a loss, but now there is a building revival. Wildcat oil schemes brought on people from from all over the United States who invested largely and now their properties have proved valueless.

The water supply has been more meager for a year than at any time since 1877. Land values are low. Some mortgages have been cut. Oil can be bought at 15 cents a barrel, and any amount of it can be had on board cars at 20 cents. Fifty per cent of the people who invested in the oil business are now bankrupt, owing to the low price of oil. Kern oil is nearly all fuel oil and there is a big difference between that and oil that can be refined.

Referring to the above, the Oakland "Enquirer" says editorially:

"The State Board of Equalization gained some interesting information on the subject of oil the other day when investigating Kern county assessments. According to the evidence that coun-

ty is only beginning to recover from its oil boom. Hopes were raised to too high a pitch, extravagant expectations were indulged in and the natural results followed. Now business is settling down to its proper level, and the county is beginning to be legitimately prosperous again.

"As in all cases of boom, as many fortunes were lost as won. One witness before the board testified that fifty per cent of those who invested in oil are now bankrupt and that oil can be bought in the county at 15 cents a barrel. Experiences such as this are common in all cases of boom. Men become crazy with excitement and rush in where angels would fear to tread. The results are inevitable. A few make large fortunes and the majority lose what they have invested. It always has and always will be so. Too often, also, the entire boom collapses and leaves the community in a demoralized state. The California oil boom, fortunately, is on too firm a basis to collapse. It has, in fact ceased to be a boom. Much of the speculative character has disappeared and it is now on an ordinary conservative business basis, where it will undoubtedly remain for many years to come."

### General Oil News.

There has been no change in prices of Texas oil lately. The offer of the pipeline for oil at Beaumont at thirty cents and at Sour Lake for fifteen cents has not been changed, but there is little to be had at those prices. The two pipelines are kept busy handling oil that is produced by the Texas company and the Guffey people.

Shipments of Pennsylvania oil for August, so far as reported, average 79,485 barrels per day, and the runs average 70,774 barrels. Shipments of Lima oil average 67,296 barrels, and the runs average 54,873 barrels. The net shortage of both fields is over 21,000 barrels daily.

H. W. Walter, manager of the Requena Oil company, operating at Rangely, Colorado, in Rio Blanco county, writes that the Requena well No. 2 is down 2,110 feet, with no sign of oil. Union well is down about 1,350 feet and yielding about ten barrels a day. Both wells are in excellent condition and work is being pushed as rapidly as is possible so far from the railroad.

The Southern Pacific has directed that all squatters be removed from its oil land at Saratoga, Texas, and the entire tract will be fenced as soon as possible, the work to begin at once. The company has started work on the fifth well, and has ordered a derrick for No. 6. Three wooden tanks have been completed, two of 5,000 barrel capacity and the other of 3,000.

Within the past month there

has been a marked increase in the demand for oil at Bakersfield, and the effect is apparent in the field. Aside from the fact that most of the established companies are operating their properties both drilling and pumping, several new comers have been recently organized with the intention of drilling as soon as arrangements can be made.

The Fidelity Oil company, pumping a well south of Florence, Colo., has encountered an undercurrent of salt water. Salt water is not often found in the Florence field.

The Beaumont Refining company's plant at Spindletop station, near the oil fields, is now complete, and the output to begin with will be 500 barrels per day, but if the industry proves as successful as anticipated the capacity will be enlarged to 4,000 barrels at a later date. Manager Yates says that there are already orders ahead that will keep the plant busy for months. The Great Southern Refining company, the National Refining company and the Beaumont are now all running. The only small refinery not now in operation is the Union. It is announced that the latter company will resume operations within a short time.

The first run of the new refinery at Corsicana, Texas, was made

last week and was a complete success. The refinery was built by the San Jacinto Oil company, but has been leased and will be operated by the Richardson-Gay Oil company, who will also have a grease factory in operation in the vicinity of the refinery in a few days.

John H. Galey, of Guffey & Galey, the Pittsburg oil magnates, is now in Wyoming with President P. J. Barr, of the Basin Oil company, for the purpose of investigating the oil fields of the Big Horn Basin, with special reference to the recent oil strike by the Hoosier company. The strikes of the Kern and Hoosier companies of a high grade illuminating oil that equals the best product of the Pennsylvania fields, has attracted Mr. Galey's attention to Wyoming. His verdict is awaited with interest, because the advent of large capital in the Big Horn Basin would result in rapid development of what is believed by some oil men to be a great and rich field, fully equal in quantity and quality to Pennsylvania.

### Dividend.

The regular monthly dividend of 5 cents per share will be paid by the Debenture Surety company at its office 324 Rialto Building, San Francisco, California, on September 15th. Transfer books close September 12th.

## Wyoming Oil Lands

I have just secured control of over 3,000 acres of valuable oil land, located in the famous Uinta county oil field, where recent discoveries of oil have caused such wide-spread excitement. This land is mostly in the recognized oil belt, directly north and south of the producing wells and but a short distance from the big well brought in August 24th.

The present owners of this land are unable to develop it on account of lack of capital, and I am enabled to offer it at a figure too low to publish. Will be glad to give a full description of the land to parties meaning business.

**E. S. EASTMAN,**  
Evanston, Wyoming.





View of Evanston, Wyoming, Headquarters for Industries Carried on in the Uinta County Oil Fields.



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## MODESTO'S STREETS.

## How That City Has Commenced Improvement Work.

Last week witnessed the beginning of a much needed step toward the improvement of the streets of Modesto, says the "News" of that city.

Some time ago the town trustees appointed a committee to look into the advisability of oiling the streets of the city, and as a result of their investigation D. C. Matteson is engaged in oiling J street.

Supervisor Coffee's big new road oiler is being used on the work and is giving most satisfactory results.

Mr. Matteson is following a method, which as a result of investigation into the various methods of applying the petroleum, he has decided is productive of the best results. He has the surface to be oiled heavily sprinkled, until it can be cut with a disc harrow, and the ground is thoroughly loosened to a depth of about two inches. Two coats of oil are then applied to that portion of the road where traffic is the heaviest, and one coat on the sides of the road. A rotary harrow is then used to thoroughly mix the earth and the oil, after which it is dragged and rolled smooth, and the street is ready for traffic.

One great objection made in many places has been the fact that the heavy, black oil has been left in puddles on the road surface, sticking to the feet of pedestrians and clinging to the wheels of vehicles, to be thrown in greasy strings over the body of the vehicle and over the clothing of the occupants. This is, indeed, a most disagreeable feature.

But Mr. Matteson's method will eliminate this objectionable feature, and because of two reasons: First, because the oil instead of being applied on top of the road, is worked into it. Second, because of the use of "thin oil," which does not have the tenacious stickiness of the heavier grades.

In the course of two weeks J street will be a splendid driveway; the oiled earth forming a thick, elastic crust and giving the sensation, almost, of driving over a rubber blanket.

It will also be free from dust.

The amount of oil required for one block is a little over 800 gallons.

A system of deep well boring is practiced in Japan, in the province of Kadzusa, which for cheapness and simplicity appears to be unequalled. An ordinary irrigation well leading down to the thirty-foot water-bearing stratum in the province of Kadzusa costs only some \$15, and \$50 seems to be the highest price charged for going down to the 720-foot stratum. The secret of this system is the use of the bamboo.—Ex.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, September 9th:

CARIBOU.		
385 at 1 10.....	\$ 423 50	
400 at 1 15.....	460 00	
HANFORD.		
3 at 131 00.....	393 00	
HOME OIL.		
200 at 62½.....	125 00	
300 at 65.....	195 00	
300 at 65 (S 30).....	195 00	
400 at 75.....	300 00	
1,250 at 77½.....	968 75	
100 at 77½ (S 30).....	77 50	
1,200 at 80.....	960 00	
100 at 80 (S 30).....	80 00	
500 at 82½.....	412 50	
300 at 82½ (S 30).....	247 50	
1,200 at 85.....	1,020 00	
200 at 85 (S 30).....	170 00	
200 at 85 (S 90).....	170 00	
1,100 at 87½.....	962 50	
100 at 87½ (S 60).....	87 50	
100 at 87½ (S 90).....	87 50	
100 at 87½ (C).....	87 50	
INDEPENDENCE.		
6,450 at 18.....	1,161 00	
KERN.		
25 at 5 00.....	125 00	
LION.		
2,000 at 04.....	80 00	
MONTE CRISTO.		
200 at 69.....	138 00	
2,800 at 70.....	1,960 00	
OCCIDENTAL OIL.		
200 at 19.....	38 00	
OIL CITY PETROLEUM.		
1,100 at 29.....	319 00	
STERLING.		
100 at 2 75 (B 90).....	275 00	
200 at 2 80 (B 90).....	560 00	
TOLTEC.		
1,000 at 20.....	200 00	
22,513 Shares.....	Amount \$12,278.75	

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.40	
Apollo.....	.46	
Asso. Oil Co Stk. Tr.		
Certificates.....	.23	
Aztec.....		
Bay City.....		
Bear Flag.....		
California Standard.....		
Caribou.....	1.05	1.25
Central Point Con.....		.80
Chicago Crude.....		
Clairemont.....		
Esperanza.....	1.00	
Fauna.....		
Four.....		.70
Fulton.....		
Giant.....		
Hanford.....		134.00
Home.....	.87½	.90
Homestake.....		
Imperial.....		
Independence.....	.17	.18
Junction.....		
Kern.....		
Kern River.....	12.00	
Lion.....	.03	
Monarch of Arizona.....		
Maricopa.....		
McKittrick.....		
Monte Cristo.....	.70	
Nevada.....		
Occidental of West Va.....	.17	
Oil City Petroleum.....		
Peerless.....	13.50	
Petroleum Center.....		
Pittsburg.....		
Piedmont.....		
Reed Crude.....		
S. F. & McKittrick.....		
San Joaquin O. & D.....		
Senator.....		
Shamrock.....		
Sovereign.....	.36	.38
Sterling.....	2.60	3.00
Superior.....	.05	
Thirty-three.....		
Toltec.....		
Twenty-eight.....		
Union.....		
United Petroleum.....		
West Shore.....	2.80	
Western Petroleum.....		
Wolverine.....		

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9:30	A. M.—*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
9:30	A. M.—*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
4:00	P. M.—*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.
8:00	P. M.—*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\* Daily      † Tuesdays and Thursdays

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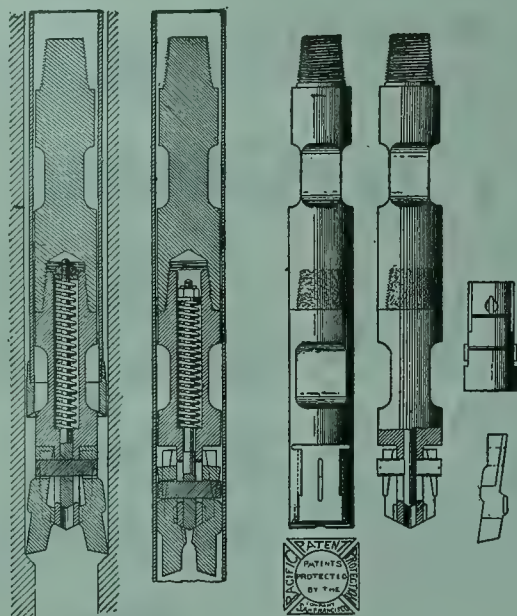
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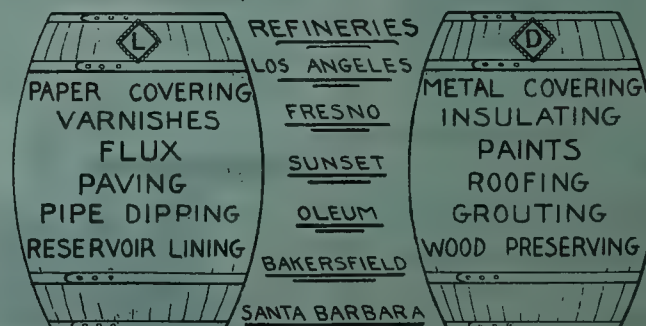
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Vol. 4. No. 45

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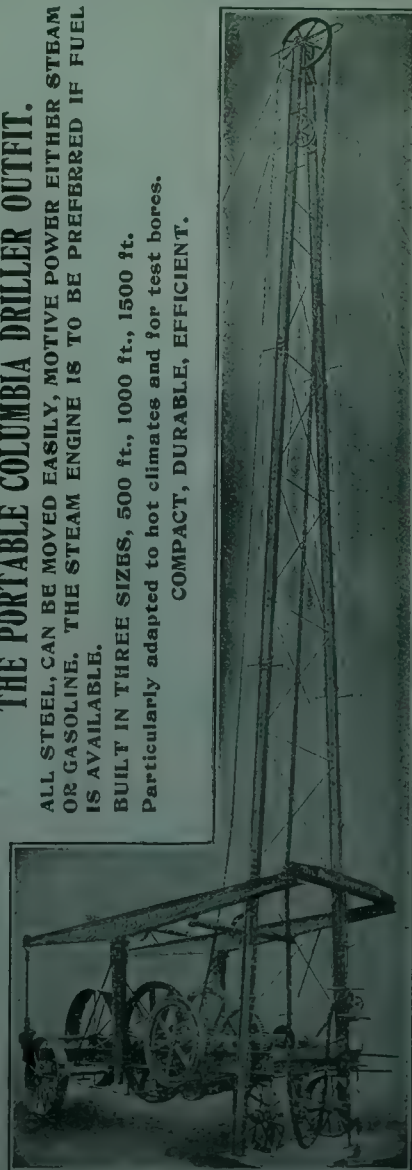
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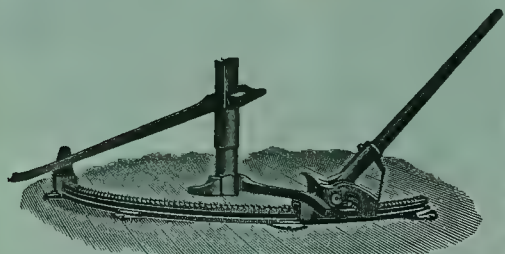


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# PACIFIC OIL REPORTER

VOL. 4. No. 46.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 19, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

MRS. MARIA ROSA WINN,  
Proprietor and Business Manager  
U. M. THOMAS, Editor

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### ANTI-CLINALS.

If the latest charge is proven his name will probably be changed to "Salt-water Johnnie."

First it was the phylloxera, then the codlin moth, but just now it seems to be the state board of equalization.

It will not be surprising now if the Kern River operators insist on sampling the contents of that pipe-line occasionally to ascertain if it have a saline flavor.

Sir Thomas Lipton bears his defeats with such supreme complacency that the world at large would like to see him get hold of that cup for just once to see how he would act.

Automobiles are to be prohibited from using the new Alameda and Contra Costa tunnel. If the average Contra Costa plug can get used to that tunnel he ought not to scare at an automobile.

The discipline of the internal revenue department is very severe. It became necessary, recently, to analyze the stomach of a Memphis goat to prove if he had eaten the stamps off five barrels of confiscated whiskey, says the Oil City Blizzard.

In Kansas City the other day a man was fined \$10 for beating his wife into insensibility and another man was fined \$15 for beating a cow, which leads an exchange to facetiously remark that it should be remembered that Kansas City is a great cow center. It should be remembered, too, that the cow has no chance for retaliation.

A local coal dealer sends out a trade circular in which he says he expects to see many consumers of oil return to the use of coal now that oil has advanced to such a high figure. If oil should advance another 5 cents a barrel he would probably expect to see them burning greenbacks. These coal dealers seem to be whistling to keep up courage.

The newspapers report that H. E. Huntington will transfer his legal residence from this state to New York city. It is altogether likely that some fool assessor has been assess-

ing Mr. Huntington's personal property just like he were an ordinary resident of the state, which will never do. With millionaires it is sometimes cheaper to move than to pay taxes.

A gold nugget was recently found in Mexico said to be worth \$75,000. From other parts of the country come news of recent rich nugget finds. If the nugget epidemic should become general it may force a revision of the financial policy of some of our political parties. Bryan should take steps to head this thing off lest it bring about a recurrence of the "crime of '73."

A Methodist bishop of Minnesota is in favor of founding a "chair of common sense" for the training of young men for the ministry. While the idea is probably not entirely new to the average layman it is just a little surprising to know that some ministers have discovered the lack of this kind of training. There are numerous places outside of theological circles where the institution of such a chair would be productive of much good.

At Fresno the other evening a skunk wandered into the baggage room at the Southern Pacific depot and showed a disposition to get acquainted with the baggage agent. The agent should have known better, but he didn't. He threw a monkey wrench at his skunkship who resented the lack of courtesy in a characteristic manner. The Southern Pacific was obliged to send its passenger trains around by Armona for a few days. By the way, it couldn't have been much worse than the smell that emanates daily and constantly from Chinatown just across the track, about which not a word of complaint is ever uttered.

The International Mining News of Los Angeles is disposed to poke a little fun at the PACIFIC OIL REPORTER for speaking of the defunct "Oil, Mining and Finance" publication as the "Oil, Copper and Finance." For some reason not quite clear to the writer the deceased journal changed its name some months ago from the latter caption to the former, which leads the International and-so-forth to speak of the oversight as a "regrettable mistake," and that perhaps the PACIFIC OIL REPORTER "had fallen by the wayside." The observations of our esteemed contemporary, while possibly a little far-fetched, are nevertheless extremely funny and remind us of what Josh Billings once said about people who criticised his spelling and use of capital letters. While some people might object to it with some show of reason, it made little difference to him, Billings remarked, whether he spelled "cow" with a capital "K" or a small "k." Some people are too critical.

### Midland-Pacific Again.

Isaac Blake, the chief promoter of the Midland Pacific, dropped into the valley this week, accompanied by a representative of London capitalists. Work on the Midland is progressing quietly but surely, and the days of grain hauling from Garey are numbered. —Santa Maria Times.

### ANNOUNCEMENT.

The death of Mr. Winn renders a change in the editorial and business management of the PACIFIC OIL REPORTER necessary. The suddenness of his unexpected demise found the parties most interested wholly unprepared for the new adjustment which is thus rendered necessary. Fortunately Mr. Winn had made a will by the terms of which his wife became the residuary legatee of his estate and consequently owner of the paper. With the aid of competent and experienced help in the office Mrs. Winn will conduct the business management of the paper, while the undersigned will assume the editorial work for a time at least.

Mr. Winn gave to the paper a personality which it would not only be unwise but impossible for the writer to attempt to imitate.

Under the present circumstances this fact is somewhat embarrassing to the writer as the new duties are not of his seeking. However, the work is not entirely new to us, having been engaged in it for many years, but when we came to California two and a half years ago and became identified with the oil industry, it was with little thought of ever again taking up the editor's burden. How little we have to do in shaping our destiny, after all. That "divinity that shapes our ends" has placed us here, temporarily at least, and, following the dictates of conscience and duty we enter upon our work asking our readers to exercise toward us such patience and forbearance as our weak humanity and erring judgment entitle us to.

U. M. THOMAS.

### LESSON OF THE HOME FLURRY

The lesson to be learned from the recent upheaval in the Home Oil company is one that deserves to be emphasized at the present time. While the lesson is a costly one to many innocent victims it is an unalterable law that the innocent are usually made to suffer more than the guilty. Disclaiming any desire or intention to add to the humiliation or financial distress of any of the interested parties in this instance we nevertheless think the time and occasion opportune to appropriate the lesson to point a moral even if it does not so beautifully adorn a tale.

This paper has in recent issues severely criticised the conduct of some of the officers of the Home company, and the writer of these lines is not disposed to temper these criticisms in the least. While the management of the company was unquestionably guilty of dishonest practices, these practices were made possible by the extreme gullibility of oil stock speculators on the one hand and the manipulation of oil stock brokers on the other. There is perhaps less cause for regret in the present instance from the fact that many supposedly sharp brokers were heavy losers. It isn't in the creed of a broker to be caught napping and get pinched. He is supposed to be on the alert for customers whose normal condition is a comatose one. In this instance the management of the Home Oil company found both broker and speculator as innocent and



unsuspecting as new-born robins with mouths agape. This condition was largely contributed to by the brokers themselves. And this brings us to the moral of the present lesson: The oil stock speculator who watches the stock board thermometer and ventures upon the market under the prognostications of the stock board manipulators is pretty sure to get caught in stormy weather.

It is unfortunate for a legitimate oil company (and the Home company is worthy of double honor under this caption) when its stock becomes a foot-ball in the stock market. Were the control of its stock within its power in ninety-nine cases out of a hundred this would not be true. But brokers are in the business for a living and they are often puzzled to keep things "doing." The speculative individual is mercurial in his nature, sensitive to the weather so to speak. This makes business for the broker.

Then another thing—the gullibility of the average oil stock speculator. It is passing strange that so many people of intelligence will buy stock in any old company that somebody recommends. The writer knows it for a fact that many good business men held stock in the Home Oil company who never for a moment stopped to inquire into the management of the company or even seemed to care. This is true in all companies. This fact leads to carelessness and renders dishonest practices possible. A good rule to follow in buying oil stocks is to buy in no company that does not publish at regular intervals full and explicit reports of all its transactions attested by the oath of its officers. Then again: Every company whose stock is offered for sale or is listed on the stock exchange should be compelled to keep on file in the board room, open for inspection by the public, quarterly reports, and stock brokers should be required to furnish these reports to buyers, when requested to do so.

Stock boards are doubtless necessary and this paper does not wish to be understood as condemning them on general principles. But the methods by which they are conducted should be hedged about by such restrictions as to inspire greater confidence on the part of the public than at present exists.

The injury done to the oil industry by the late trouble in the Home Oil company is far-reaching and lasting. Public confidence has been shaken terribly and will not soon recover from the shock. This result is perfectly natural. It could not reasonably be otherwise. The public is usually slow to discriminate and a poor hand at it withal. The volume of the daily business on the board since this Home trouble began shows the effect of this. But the effect is felt even more keenly outside of the board room.

Let brokers and officials of the leading oil companies get together and, facing conditions as they actually exist, devise some remedy to improve them.

A monthly publication styled "The Southwest", published at Los Angeles, has reached our desk. The new paper is devoted to oil, mining, manufacturing, realty and finance, certainly a wide range and a big field. The paper is well edited and neatly printed. We wish the new venture abundant success.

The subscription list of "Oil, Mining and Finance", a Los Angeles paper which recently gave up the ghost, has been purchased by the International Mining News, also of Los Angeles, and the subscribers of the defunct paper will be served by the latter.

## FARMERS AS TRUST BUSTERS.

The California Raisin Growers' association is often cited as the most perfect specimen of a trust in existence. The association is composed entirely of growers of raisin grapes. In California they are called ranchers,—in the East they would be called farmers. This association controls over 90 per cent of the raisins grown in the State and fixes arbitrarily the price at which they must be sold, and the most remarkable thing about this association is that the size of the crop has absolutely nothing to do with fixing the price of raisins. The association has been on earth long enough to know what it is here for and how to do it.

Then here comes a report from Chicago telling of a meeting in that city last week of fifty representatives from agricultural associations in twelve states to discuss plans for organizing a national body for the purpose of fixing prices of all farm products, regulating the marketing of crops and constructing grain elevators and cold storage warehouses for the use of farmers. The plan of alliance is to amalgamate all organizations now in existence and form associations in every county in each State under the direction of the national body. The national organization to carry out the plans outlined would have to be capitalized for \$100,000,000 and the farmers would be expected to subscribe for stock.

Summed up, the spirit of the day's session was declared as follows: "Every other important industry in the country but the farmers has taken the necessary steps to protect their interests. The business of farming is in a bad way and conditions will grow worse unless something is done along the line of organization and co-operation. The bigger the crop the smaller the prices. The only reason every farmer is not bankrupt to-day is that an all-wise Almighty sends us a dry season now and then, which makes a short crop and good prices. In this way the average is maintained. We should not wait for Providence to do it all. The farmer holds the destiny of the industrial world in his hand and he should take advantage of his position. We must form a national organization, fix a minimum price for our products and hold back our crops until we get our price."

T. H. B. Chamblin, the Riverside orange-grower, told of the experiences of the California fruit men before they organized. "Our association," said Mr. Chamblin, "has had remarkable success. We are now able to control the fruit market. By proceeding on the theory that every man is entitled to his share of the day's consumption, that the man who grows first-class fruit is entitled to what it brings, that the grower of oranges is entitled to his share of the country's consumption, and that fruit should be packed at cost, we have been able to benefit ourselves and make orange-raising profitable. We employ our own agents and market our own produce through them. Your products are staple products, while ours are perishable, and I believe that you can establish warehouses on the co-operative basis, store your products, and, proceeding as we have done, make it possible for the farmer to acquire a profitable income instead of existing with his nose to the grindstone all his life."

It is refreshing to see the down-trodden farmer get on top once in a while and rub it in to his erstwhile oppressors. And there is probably no individual on the face of the earth who squeals louder when he is on the bottom or crows more lustily when he is on top than the farmer. All honor to the emancipated farmer.

## EDITORIAL NOTE AND COMMENT.

This office is reliably informed that the Standard Oil company will extend its Coalinga pipe-line into the southwest part of the field, connecting with the Wabash well on section 24 and the Baker well on section 23, 20-14. It is also quite likely that the Caledonian and Blue Diamond wells will be included in this extension.

The recent articles about the Salt Lake oil fields in the PACIFIC OIL REPORTER have been copied into leading oil journals, not only in this country but in England, with the result that numerous inquiries are coming to this office about these new fields. The latest news from Salt Lake is that plans are being shaped for beginning active development work within a very short time.

Oil men and others interested in or connected with the oil industry in any way are invited to call at the office of the PACIFIC OIL REPORTER when in San Francisco. It is by personal acquaintance and personal contact with those engaged in the industry that the editor of this paper is enabled to gather facts and obtain ideas that will make the paper interesting and beneficial to all concerned. Drop in and get acquainted.

Advertisers are reminded of the fact that the PACIFIC OIL REPORTER is the only newspaper devoted EXCLUSIVELY to the oil industry on the Pacific Coast. Being a weekly publication, it gets the news before its readers while it is fresh. Its size enables it to give abundant space to the publication of news without crowding its advertisers. The size and scope of its circulation renders it by far the best advertising medium available for lines of trade dependent upon the oil business. The writer by reason of his many years' experience in the newspaper and advertising business feels competent to pass expert opinion on the merits of the paper from an advertiser's standpoint. If you have anything to advertise to the oil industry you cannot afford to overlook the PACIFIC OIL REPORTER.

This paper is frequently reminded of having made a mistake in some item of oil news. Somebody's name was either misspelled or not spelled at all, and somebody's oil well was located upon the wrong man's land, and so on. We want to get these things right, but oftentimes we find ourselves copying other people's mistakes in an endeavor to get what we supposed was the genuine article. Much of our news is necessarily gleaned from our exchanges, and when they make a mistake we are liable to copy it. This leads us to remark that it is very hard to get oil news direct from those who are best qualified to give it. We know no reason why this is so, but it is. If those interested would furnish the facts to the newspapers themselves, instead of allowing or forcing the newspapers to skirmish for it, it would often avoid confusion and trouble. We never like to force John Brown to wear Bill Sykes' name nor to get Bill Sykes' oil well on John Brown's land, and when this does occur it is not because we want to do either man an intentional injury. The public needs often to be reminded of the power of the press. We can call you by any old name we please and locate your Kern county oil well in San Benito if we want to, and make the public believe it, and if you don't want us to do it the best way is to furnish us the news direct yourself, and then we assure you it will be published just as it should be.



## LATEST AGAINST THE STANDARD

According to reports published in the daily newspaper a suit has just been instituted in Texas courts, by parties residing in Houston, against the Standard Oil company on a very novel charge. The charge is of pumping salt water through its Beaumont pipe-line from the gulf and flooding the wells on Spindle Top for the purpose of making them appear worthless, and then buying them up for merely a song. The charge seems almost incredible, but the suit is evidently instituted in good faith if the reports may be believed. It is asserted that unmistakable proof of the charge has been discovered. The Standard has a pipe-line from Beaumont to the gulf ostensibly for the purpose of conveying oil from the Spindle Top field to its shipping wharves. Parties who were suspicious of something wrong tapped the pipe-line a few days ago midway between Beaumont and the gulf to find the line conveying salt water instead of oil and toward Beaumont instead of toward the sea. This discovery has led to the bringing of the suit and big damages are asked for. If the charge is proven true it will put the Standard Oil company in a worse light than its severest critics have even tried to place it. The outcome of the suit is anxiously awaited by oil men everywhere.

## Southwest Oil Refining Company's Plant.

The Southwest Oil Refining Company's plant in the Kern River field, directly across the track from the Standard Oil Company's nest of storage tanks, is rapidly nearing completion, and it is expected that by October 1st the plant will be in full operation.

This plant will have a capacity of 800 barrels daily, and may be increased to 1,000 barrels. Distillate and asphalt will be the leading products of the refinery, but it is intended in the near future to manufacture standard grades of lubricating oil, for which there is always a demand in the oil fields.

The plant, when completed, will represent an investment of \$50,000, and the money has been carefully expended in the installation of modern appliances to convert the crude oil into the refined products. The process that will be used at this place is much simpler than that in vogue at other refineries and far more productive in results.

The refinery, when completed, will be modern in every detail and will contain some apparatus not found in other plants. There are three large stills and one large retort. The company has spared no money in obtaining the best apparatus for the successful refining of crude oil and the buildings have been constructed with a view to permanency and convenience.—Bakersfield Echo.

## Will be Given Better Railroad Service.

The railroad service into the Coalinga oil field has been abominable of late. But one train a day is run to Coalinga and that is a combination oil, freight, passenger and mail train. The track from Armona Junction to Alcalde is in poor condition necessitating slow speed. On the westward trip the train is often held for hours at Armona for oil cars. The engines used on this run are small and usually in unfit condition for service. They are capable of handling about fifteen oil cars in connection with the passenger and freight cars always in the train, but since the oil business has taken on new life in the Coalinga

field it is not uncommon to put thirty oil cars into the train. With the time consumed in switching so many oil cars at Ora station it is often as late as seven o'clock in the evening before the train leaves Ora station on the return trip to Hanford and Goshen Junction. The result is all connections with the main line Southern Pacific and Santa Fe passenger trains are missed. Numerous complaints have been made against the railroad company of late but it was not until the postoffice department at Washington was notified of the delayed mails that the Southern Pacific company really gave any assurance of an improvement. There is business enough on the Coalinga branch to require two trains daily, a passenger and a freight, and the patrons of the line should be content with nothing short of this.

## Over Two Billion Lost in Stocks on Wall Street.

According to a New York financial paper, the shrinkage in railroad and industrial stocks dealt in on Wall street, has, during the last six months, amounted to over two billion dollars. The following figures will give an idea of the enormous shrinkage in the prices of stocks dealt in on Wall street.

	Loss per Share.
Atchison.....	\$ 33.00
Baltimore & Ohio.....	38.00
Chesapeake & Ohio.....	24.00
Canadian Pacific.....	26.00
Erie.....	16.00
Illinois Central.....	48.00
Louisville & Nashville.....	23.00
Missouri Pacific.....	24.00
New York Central.....	62.00
Norfolk & Western.....	18.00
Chicago & Northwestern.....	110.00
Pennsylvania.....	51.00
Reading.....	30.00
Rock Island.....	48.00
St. Paul.....	62.00
Southern Pacific.....	36.00
Union Pacific.....	56.00
Sugar.....	38.00
Colorado Fuel.....	78.00
Tennessee Coal.....	30.00
U. S. Steel (common).....	28.00
U. S. Steel (preferred).....	24.00

Neither oil nor mining stocks ever experienced anything like the general effect of over-speculation that the railroad and industrial stocks have in the past six months. And this, too, in a time of general prosperity.

## Land Department Proposition.

The land department of this paper is almost daily in receipt of offers to buy, sell or invest in some kind of an oil proposition. While some of them are consigned to the waste basket most of them are really meritorious. Many of these propositions come to us bearing the endorsement of most reliable parties and we have every reason to believe them to be as represented. Many of them are development propositions requiring the investment of a small amount of capital. One that impresses us as being particularly meritorious, and that bears the endorsement of a well-known and thoroughly reliable oil man, comes to us from one of the southern oil fields and requires the investment of \$5,000 cash to enable present owner to finish well and perfect title. If any of the readers of this paper would like to avail themselves of any of these offers, and will make known their wishes, they will be put in touch with the right parties.

## Union Company to Build Pipe Line to Coast.

W. W. Orcutt of the geological department of the Union Oil company of California, which has acquired over 100,000 acres of what is believed to be oil-bearing lands and upon which three successful wells have been brought in, is in the Santa Maria valley arranging for rights of way for a pipe line from the different wells to the ocean, says the Santa Barbara Independent. Mr. Orcutt reports that the privileges have been secured for the entire distance with the exception of one strip through a small tract near Casmalia.

It is the intention of the company to run a four-inch pipe line from the gusher which recently came in on the Purissima ranch from the mountain to the narrow gauge road, following this road until it reaches Blake station and from there make a direct line to the ocean near Casmalia. There will also be another fork running from the wells on the Fox ranch, which is near the Pinal company's property, and joining the main line at Blake station. There will be two pumping stations located at either field which will force the oil to the summit of the mountains, from where it will easily gravitate to the ocean. There will be about thirty miles of pipe. It was the original intention of the Union Oil Company to construct a pipe line from their field on the Purissima rancho to the old Lompoc landing wharf, but recent developments have led the company to believe that the more valuable oil properties are on the other side of the divide and they consequently abandoned the intention for the Santa Maria line.

Forcing the northern country oil through a pipe line has been found to be most successful. Thousands of barrels are now being sent monthly from the Western Union Oil Company's field on the Careaga ranch to Alcatraz landing, a distance of nearly thirty-five miles. During the warmer seasons the pumping has been easily done.

## A Few Zephyrs from the Oil City "Blizzard."

If you can't make hay, get in some straw.

Don't hunt for excuses, 'tis better not to need 'em.

Some men are like sunshine about their homes. They are never there at night.

An Oil City man says the reason he does not travel more is because he never knows when to get off the trains.

It is asserted by one who claims to know that when a Kentucky man wants to practice economy he takes three 10-cent drinks instead of two 15-cent ones.

We're all struggling how to get on Easy Street, but in nine cases out of ten we wouldn't know how to travel it rationally were we to get there. In the meantime there is an abundance of enjoyment along the Rocky Boulevard if we only utilize rubber tires.

A story is told of two Chautauqua County farmers, who owned adjoining farms, and who were on very friendly terms. One had a daughter, the other a son, and that the young people should come together, more or less, was the most natural thing in the world. Briefly, this intimacy gradually resulted in a case of loving not wisely but too much, with serious consequences. Then the father of the girl went to the other and complained to him that his son had ruined his daughter, whereupon the father of the lad complainingly said: "That danged boy is getting to be altogether too careless; only day 'fore yesterday he broke a hoe-handle."



## ITEMS FROM OUR REGULAR CORRESPONDENTS.

### A Newsy Budget from the Coalinga Field—Local Happenings in the Los Angeles District.

Coalinga, Cal., Sept. 15th.

Messrs. Sleep & Fitzpatrick both of whom are interested in the Blue Diamond Oil Co. on section 26, have purchased from A. E. Webb, a twenty-acre tract in the NE $\frac{1}{4}$  of the SE $\frac{1}{4}$ , and have also taken an option on the balance of the land owned by Mr. Webb in the SE $\frac{1}{4}$  of section 14, 20-14.

The Union Oil Co. has subleased from L. Nathan his lease in section 7, 20-15, on railroad property. In order that the Union Oil Co. may comply with the stipulations of the lease as contracted by Mr. Nathan, it is compelled to have two wells finished by the middle of December. In consequence work is being hurried in rigging up for two wells and fitting up a camp. At the present rate of progress, it will be ready to spud in on number one by the end of next week which will be followed by number two without delay.

The Hanford Oil company has finished its number 4 well, which is now pumping at the rate of about 150 barrels per day. Number 5 will be in progress of rigging up shortly.

Smith & Bryner have built a derrick on section 6, 21-15 as their assessment work on a claim located in that section.

The Pacific Coast Oil company is drilling a water well on its lease on section 6.

The Commercial Petroleum company has levied another assessment of one dollar per share on the subscribed capital stock. The company is making extensive improvements preparatory to drilling six additional wells on which work will be begun immediately.

R. C. Baker has finished his well on section 14, 20-14, all except perforating it. Thirty feet or more of oil sand was penetrated and the sand is very coarse and rich. Although the depth is less than 800 feet, the oil seems to be of a lighter gravity than in his number 1 well on section 23.

A new company composed largely of eastern men has recently been organized under the name of the Westmoreland-Coalinga Petroleum company, and has control of the E $\frac{1}{2}$  of the W $\frac{1}{2}$  and the NE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of section 34, 19-15. Operations will commence at once with Mr. W. P. Kerr as field manager. The land upon which this new company will begin work is unquestionably good oil territory, being only a half mile south from the big producers of the California Oil Fields, Ltd. and 28 Oil company.

The current report that Section 7 Oil company's well is flowing at the rate of 1000 barrels per day is by no means an exaggeration. In fact there are days when it is nearer producing 1500 than 1000. Many prominent oil men have been here to see the well and without exception pronounce it one of the best producers in the state. Discounting the lulls in its flow, the well keeps up an average of nearly 1000 barrels per day. The company has ordered two more 1200 barrel tanks. As soon as they are in position to receive oil the finished number two well will be perforated. There is no doubt but that too will equal number one in its daily production. This will not only make the Section 7 Oil company the largest producer in the west side of the

field, but a close rival for first position in the field. S.

Los Angeles, Sept. 15th.

Drilling operations in the local field continue active, in fact are on the increase, in an effort to keep up with the growing demand for oil.

Several sales of properties in the local field were made during the month. The Union Consolidated Crude Oil company, one of the enterprises promoted and managed by Easton, Eldridge & Co., disposed of one of its leases in the western end of the field, the holdings being located in the Knob Hill tract, and embracing thirty wells, Morris McCray, a well-known local operator, being the purchaser. The wells have not been heavy producers for a long time, but Mr. McCray has confidence in the productiveness of a third sand in that end of the territory and intends to reach for it with the drill and thus make his investment a highly profitable one.

The holdings of the Dividend Oil company, consisting of nine wells, on Boylston avenue, near Temple street, have passed into the hands of the Boylston Oil company, a new corporation formed on the property. B. G.



TIMOTHY SPELLACY.  
One of the Best Known Oil Men in the Kern County Fields.

Adams and H. E. Adams, both long identified with the local oil field, are president and vice-president, respectively, of the new company, in which there is understood to be eastern capital, represented in the person of W. C. Kelley, secretary and treasurer. The price paid for the property, which includes two pumping plants and storage tanks of 5,000 capacity, is reported to be \$15,000.

John Alton has sold to Mr. Maley four producing wells, and accompanying improvements, in the middle eastern field for a reported consideration of \$3,500. The wells have been purchased with a view to deepening.

L. G. Parker is deepening a well on Belmont avenue. He expects to more than double its former capacity.

In the southwestern extension of the city field the Salt Lake Oil company has several rigs in operation, and is making every possible effort to increase its output, which is already important.

Local oil of 14 to 16 gravity is now bringing 65 to 75 cents per barrel.

SOUTHWEST.

The PACIFIC OIL REPORTER \$2.50 per year.

### Personal Mention.

Timothy Spellacy, the well-known Bakersfield oil operator and supply man, has been spending a few days in the city.

R. H. Herron, head of the well-known oil well supply house, who has been spending several weeks in and about the Bay cities, has returned to Los Angeles, much improved in health.

Sam Shannon, superintendent of the Twenty-eight and Oil City Petroleum companies in the Coalinga field, was in the city this week on business.

H. H. Welsh, the Fresno attorney and oil land owner, was a pleasant caller on Saturday last.

Dr. J. L. D. Roberts, of Monterey, was an agreeable caller this week. He was on his return from the inspection of the Coalinga oil field. He expressed his surprise and great satisfaction at the rapid strides the Fresno county oil field is making, as indeed do all visitors to that field.

W. H. Ingels, secretary of the Fresno Flume and Irrigation company and principal owner of the Wabash Oil company, was an office caller during the week. Mr. Ingels was in the city to close a contract with the Standard Oil company for the sale of 30,000 barrels of oil from the Wabash well in the southwest extension of the Coalinga field.

E. O. Miller, the well-known Visalia attorney and oil man, met with an unfortunate accident Thursday evening. In getting out of a buggy in front of his home, he stepped on his left foot in such a way as to break the bone just below the ankle. The injury will lay him up for some time.

### Odorless Petroleum.

A process has recently been introduced by the Rutgerswerke Aktiengesellschaft for manufacturing tar oils and inodorous mineral oils, which consists in mixing the oil with oxides or with hydrated oxides of heavy metals, or else with solutions of salts from these metals, and in causing some steam to be introduced for a while into the oil, which is then warmed. Preferably, an ammoniacal solution of copper is employed, though combinations of other metals (such as iron, manganese, chrome, etc.) can also be used. When it is desired to obtain a specially viscous oil of a dark color, it is as well to introduce some air or ozone into the oil, with the addition of metallic combinations, the whole being then heated. To give an example, 1,000 parts of oil should be mixed with ten parts of the concentrated ammoniacal solution of oxide of copper; this is then heated to about 120° C., after which some steam is passed into the oil for an hour. It is already generally known that the odor of oil can be diminished by the extraction of the bases and acids contained therein, though the odor cannot be entirely suppressed in this manner. It is, however, claimed by the inventors of the process in question that an entirely odorless oil can be obtained, as the odoriferous compound of the oil enter into combination with the metal of the metallic combinations employed, thus rendering their extraction useless. In order to insure the success of this operation—or, in other words, to suppress the odor in tar and mineral oil—this should be carried out warm by introducing steam, because in the opposite case the odoriferous substances do not enter into combination with the metal. The employment of alkali enables the oil to mix more readily with the deodorizing agent.—Oil, Paint and Drug Reporter.



**General Petroleum Notes.**

Two new wells are in at Spindle Top. It is noticeable that they are to the south of what was formerly held to be the proven field, as are all the wells which are now being brought in at that point. The Guffey company started to drilling wells all around the outer edge of the hill in order to determine in which direction the oil lay, and the wells on the southern border have generally proved successful.

C. A. Watson, Pacific coast manager for the Standard Oil company, who has been in Portland, Oregon, with a view to removing the storage tanks to their recently selected location, says a tank steamer will soon supply fuel oil to Portland consumers. Heretofore the oil has been sent by rail from Bakersfield to Portland at 60 cents a barrel on long term contracts. The Standard Oil company will soon have an immense oil tank completed at Portsmouth between Albina and St. Johns on the Willamette. It holds 50,000 barrels. Mr. Watson thinks crude oil will be cheaper than slabwood for Portland consumers.

Notwithstanding the apparent lack of activity in the Jennings, La., oil field, a number of wells are in course of construction, and many more are contemplated. The recent arrivals are: Morse No. 5, Equitable No. 1, Schultz No. 1 and Layne No. 1. All of these wells are in the west or new part of the field, except the Equitable, which is located in the north central part of the old field. The Lake well, which was supposed to be a first-class salt-water proposition, has surprised her owners by suddenly throwing out great quantities of pure oil and almost freeing herself of the salt water. Her present capacity is estimated at about 400 barrels per day.

The Standard Oil company is preparing to spend \$20,000 on a large plant in Bessemer, Ala. Their business has increased to such an enormous volume that the present plant is unable to supply the demand. The improvements will be eight large new tanks and a fine office building, which will be located on Twenty-third street where the plant of the company is now located.

Guffey & Galey have received notice that Secretary Hitchcock has approved two of their applications for oil leases embracing 320 acres immediately north and west of the town of Red Fork in the Creek nation. This same company, about a week ago, received a lease of 160 acres near Muskogee. These are the only oil leases that have been executed in the Creek nation. The success of Guffey & Galey is alleged to be due to its exact compliance with the lease requirements. About 76 applications for oil leases in the Creek and Cherokee nations, each lease averaging about 80 acres, are pending, but a number have been turned down because of technical defects.

Saratoga, Texas, is rapidly becoming a great

oil field under the aggressive development policy of the Southern Pacific Company, W. E. Brice and the English company managed by C. K. McFadden of Beaumont. The field, as developed north and south, now extends over a distance of 4,000 feet and other wells now starting will doubtless extend the field north more than 1,000 feet, and south over 1,500 feet. As yet the width of the field has not been determined, but there is no reason to doubt that it will be as wide, if not more extended north and south. Compared to the Sour Lake field, the distance from north to south is even now greater than that field, the extreme points in that field being only 3,000 feet. Lack of a railroad has handicapped the field to a great extent. Up to date, twenty-one wells have been drilled, or are in process of drilling, and none of them have been dusters.

Reports compiled by the Oil City Derrick covering the activity in the Ohio and Indiana oil fields for the month of August show that 436 wells were completed in the Ohio fields during the month, of which 35 were dry. The new production was 5,364 barrels per day. Eighty wells were abandoned. The increase in completed wells was 47; increase in new production, 948 barrels; increase in dry holes, 11; average output of August wells 10-10 barrels per day. In the Indiana field there were 387 new wells completed during the month, with a production of 4,964 barrel per day, and 49 dry wells. The increase in completed wells was 10; increase in new production 4 barrels a day; average yield of the new wells, 14¾ barrels.

J. J. Hoblitzell, of Pennsylvania, has recently taken up a vast acreage in Jackson county, Kentucky, amounting altogether to 40,000 acres, it is understood. He immediately sent two drilling machines into that territory. Mr. Hoblitzell has done a great deal of work in Kentucky, having already drilled about 25 wells in Knox county, besides a few in Whitley and Clay. The United States Oil Syndicate will also carry on operations in Jackson county. Over in the Whitehouse development the Standard is doing some work, and completes a well occasionally. The output of this oil is limited, but it commands a higher price than any other grade of Kentucky oil. The present price is \$1.26 a barrel. The output is shipped in tank cars.

**September Dividends.**

The following oil companies have declared dividends payable during the current month:

Four.....	\$ 3,000
Hanford.....	2,000
Imperial.....	20,000
Peerless.....	14,000
Pittsburgh.....	5,000
Senator.....	3,750
Thirty-three.....	10,000
West Shore.....	5,000

**The Oil Stock Market.**

The local oil stock market has shown a decided improvement this week over last. The trading has been more scattered than formerly and nearly all the leaders have shown an improvement. Home does not figure very conspicuously yet, shareholders evidently preparing to await development of the property under the new management. Ninety cents is the highest point reached since the reaction set in. Caribou has been in demand with few offerings. The latest sales were made at \$1.00 although 5,500 shares brought \$1.10 during the week. This stock will doubtless advance now that the company is put in good working shape. Monarch is advancing and is in demand. The latest sales were at 55. Monte Cristo is improving slightly but seems unable to get back former prestige. Kern River has made the best advance of the high-priced stock, \$15 being reached. Independence is holding its ground while Sterling has dropped slightly. Esperanza made a good showing, 1000 shares bringing \$1250. The aggregate sales for week ending Sept. 14th were 34,163 shares at \$20,272

**New Superintendent for the Home Company.**

James H. Culbertson, well known in Bakersfield, is now superintendent of the Home property at Coalinga, succeeding B. B. Ellis, brother of the late president of the company, who was forced out of office by the recent internal troubles of the company. Mr. Culbertson was employed for several years in the Sunset field by different companies and is known to Kern oil men as an experienced and practical oil worker, who can be depended on. He has now taken charge at Coalinga and will be expected to do something to repair as far as possible the broken fortunes of the once prosperous company. It is generally believed that another effort will be made to get more wells at once in the hope of increasing production to such a figure as will enable the company to make up some of the losses.—Californian.

**Too Silly to be Believed.**

The Oil City Derrick thinks the latest charge against the Standard Oil company of pumping salt water from the gulf to the Spindle Top wells is the work of the yellow journals, and is too silly to be believed. The Derrick says:

"Ignorance, folly and brazen audacity on the part of an alleged newspaper could hardly go much further than this and the writer who invented the tale is entitled to a pension from the Journal for life. Its utter absurdity is apparent at once to every practical oil man. But a paper that would bring such a charge against any great business organization, like the Standard Oil company, is to be condemned on general principles."

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5

STORES



## OIL INDUSTRY STRONGER THAN EVER BEFORE.

**An Optimistic View of the Future of the Oil Industry From a Journalistic Contemporary.**

Under the above caption the "Southwest," a new paper established in Los Angeles, devoting considerable space to oil news and the oil industry, prints its leading editorial in its initial number. The article is so well written and so replete with good sense and suggestion that we reprint it entire and ask our readers to give it a careful perusal. The article reads:

"There is nothing ventured in the assertion that the oil industry of California is to-day better conditioned than ever before in its history. True, there have been times when the price of the product has been higher—very much higher—and drilling operations heavier, but the booms in price and development were the transient effects of abnormal causes, valueless as criterions for investor, operator, consumer or supply dealer, and inevitably productive of disappointment and loss—too often, in fact, of dire disaster.

"The California oil industry is stronger in

industry with the people who furnish the mechanism and material for operations—the "supply houses" in the vernacular of the trade—ought to be higher than ever before, and doubtless is. There may have been an era when more drilling rigs, casing and supplies generally were sold, but the past furnishes no period when, in large volume, the trade could be enjoyed with as much security and satisfaction, in all respects, as it can be at present—and there is ample reason for the prediction that the volume of business done by oil well supply houses in any period gone by will, ere long, be far surpassed.

"The industry is essentially strong in the fact that the lines of limitation as to price and productive area are not close enough for easy discernment. At present prices there is a good profit in oil production to any adequately equipped and properly managed enterprise. But present prices will not stand; that much is evident. Nothing but some phenomenal output, not presaged by any development now under way, can prevent a goodly advance in the price of California crude petroleum. There may occur as the result of the manipulation of particular interests temporary checks in the advancement of price, but such interference is not probable, and it is practically certain that the next twelve months will witness an advance equal at least to that of the last twelve, and that has been, on an average,

## The S. P. Planning Extensive Improvements at Point Richmond.

According to the Point Richmond Daily Leader the Southern Pacific railroad company is planning extensive improvements at that place. As has been frequently stated in these columns the Southern Pacific company is making a strong bid for the immense traffic that is coming to Point Richmond in consequence of the establishment there of the great Standard Oil refinery. The Leader says:

"S. S. Fulton, traveling passenger agent of the Southern Pacific railroad, was here yesterday and in his rounds called upon the Leader. In the course of a conversation Mr. Fulton stated that our city had a most wonderful and prosperous future before it.

"He stated that a contract had been practically let for filling in the mole on the company's recently acquired water front lots and for the building of the piers and docks.

"He further stated that the master mechanic at Oakland had informed him that the repair shops now at Oakland would be moved to this place and that this would bring from 1,000 to 1,500 additional men in our midst.

"Owing to the congested condition and to the rapidly increasing business and lack of yard room now prevailing in Oakland, he did not believe that it would be long before work would be commenced, and he thought by the time another year had gone by, Richmond would be one of the Southern Pacific's great terminals."



View of an extension of the Los Angeles City District.

the present than at any time in the past—not excepting when the price of the crude product was 100 per cent higher than now—because it can claim with a certainty that only time and event could render possible the three things essential in the complete establishment of any industry—the unqualified utility and superior economy of its product, the abundant and steady supply of that product and a permanent and indefinitely expanding market. It is stronger because problems of transportation and storage have been solved in liberal measure. It is stronger because its various kinds of operations are conducted with more intelligence, therefore more effectively and economically. It is stronger because fitness has triumphed over unfitness, and to a substantial extent the people who belong "in oil" have displaced those who do not. In this latter fact lies a strengthening element of incalculable importance, for at the bottom of the success of any practicable and required line of human endeavor or enterprise lies managerial capacity; without managerial capacity equal to the task imposed failure may be read with the initiatory steps. Capacity is capital in the world of business; the men who can establish a reputation for the ability to do things rightly may command credit, and credit is practically as good as money. The credit of the oil

equivalent to about 35 per cent.

"When it is considered that nearly every oil pumping plant in the state is working full time in an earnest effort to respond to the call of the consumer, that the new production does not appear to offset the loss occasioned by the exhaustion of old wells, and that there is a rapid increase in demand in consequence of the steady growth of every oil using interest in the territory supplied by the California producer, and that the area of that territory is being continually widened, there is nothing rash about predicting a further advance in oil's price. Of course, it is not probable that we shall see, at least for some years, a repetition of the prices that for a while prevailed for low-grade petroleum, the prices that some of the optimists of oildom thought normal and permanent; neither is it desirable that we have a return to such prices, until the conditions governing the cost of production justify such return, and, possibly, something even higher. It is an economic truth that high prices narrow and low prices broaden a market. And it is obvious that a broad market at a reasonable profit is safer for all legitimately interested than a narrow market and an extortionate profit. The latter is the profit of avarice; it offers a premium for competitors and in doing so brings down upon its would-be recipient the inevitable punishment of unduly stimulated competition—the fall that hurts."

## Sunset Road to be Extended to Superior.

As foretold exclusively in the Californian two months ago the Sunset railroad is to be extended through the field from its present terminus at Maricopa to the Superior property, a distance of 2.10 miles. The new terminus will be known as Superior. The effect of this will be great on the oil industry of Sunset. With both this and the Jewett & Blodgett pipe-line the opportunities for marketing the products will be equal to those of any field in the State.

The extension will reach the Fulton, Maricopa, Monarch, El Rey, Occidental, Superior, T. & P. and other properties. It will not reach the Midway field or a large number of the properties further north than the Superior, which the pipe-line will reach.

The extension is said to be due to the efforts of the Crocker-Woolworth bank people and Adolph Spreckels, who now controls the Monarch property. It is said that they went so far as to threaten to finance a competing road, such as the Midland-Pacific, if the extension was not built.

The Los Angeles Express is the authority for the statement that General Manager A. G. Wells has issued orders for the work to begin at once.—Bakersfield Californian.



## UNION OIL COMPANY'S BIG COALINGA LAND DEAL.

**That Company Has Just Completed  
a 880-Acre Purchase in the  
Fresno County Field.**

Within the past week the final payments have been made and transfers effected by which the Union Oil Company of California becomes the owner of 380 acres of the finest oil lands in the State of California. About eight months ago contracts were entered into between the Union company and the owners of the lands in question, and these contracts have just been terminated by the final payments of money and the transfer of titles.

One of the parcels is in section 12, 20-14, and is known as the Hoyer tract. This tract comprises 140 acres, being a leasehold title paying a tenth royalty, and lies alongside the flowing wells of the Section Seven Oil company. This lease is estimated to be worth at the present time \$250,000. The Union paid \$40,000 for it.

The other land is in section 24, 20-14, a mile and three-quarters south of the Hoyer tract. Since the Union secured its contracts on this land the well of the Wabash Oil company has been sunk in the same section and this land is now held to be worth \$1,000 an acre. The Union paid \$100 an acre for it. This goes to show how easy it is for some companies to make money in the oil business. The Union invested \$65,000 for property which has advanced within eight months' time to be worth a half million dollars.

The Union got into the Coalinga field just at the right time to make money. At that time things were very quiet there and owners were willing to part with their holdings at what they considered a fair price. But the last six months has witnessed a great change in the Coalinga district and the most notable developments have been in the southwest part of the field immediately surrounding the purchases of the Union company.

The Union has also secured a lease of railroad land on section 13, 20-14, lying midway between the two above mentioned purchases, on which it is developing a splendid well. Had the Union company carried out the intention it had when it made these purchase contracts and built a pipe-line to the coast it would have been able to have supplied its line from its own wells independent of other producers if it had been so disposed. The sale to the Union was negotiated by the manager of the land department of the PACIFIC OIL REPORTER.

**Report No. 5 of the Fulton Oil  
Company.**

SAN FRANCISCO, CAL., Sept 11, 1903.

To Our Stockholders:

On first instant payment of the purchase price of the 120 acres constituting the producing land of this company, was completed. The entire price, including interest on deferred payments, was \$60,850.33. The land was granted by the United States to the Pittsburg Oil company by letters patent dated February 3, 1903. On September 1, 1903, said Pittsburg Oil company delivered its deed conveying said land to John M. Wright; and on the same day said Wright executed and delivered his deed conveying

said land to this company. The title is now perfect in this company and is unincumbered.

The two 70 horse-power boilers referred to in Report No. 4 were erected promptly after the letting of the contract. Additional boilers will be erected as needed.

The excavation of reservoir No. 1, capacity 100,000 barrels, has been completed and the excavation of reservoir No. 2, same capacity, is in progress.

The lumber has been purchased for the roofing of reservoir No. 1 and a contract has been let for the carpenter work, which will be done at once.

Because of the heated term and also because of the impossibility of procuring a sufficient supply of drive-pipe, the work of drilling was prosecuted by only two drilling crews during the months of July and August.

Shortly after the completion of wells 1 and 2, the casing extending into the oil strata collapsed. In No. 1 the collapsed casing has been replaced by drive-pipe, tested to a pressure of 600 pounds to the inch.

The collapsed casing in No. 2 will be replaced in the same way.

(The collapse of the casing in common use is a frequent thing, even in the Kern River field. At this present time Peerless wells 17 and 22 are both being redrilled because of collapsed casing.)

The collapse of the casing in Fulton 1 and 2 has not stopped their production, both flowing constantly, No. 1 at the rate of 100 barrels and No. 2 at the rate of fifty barrels daily.

Wells Nos. 3 and 4 have been completed with drive-pipe; and Nos. 1, 3 and 4 are to be perforated on the 12th inst. Immediately afterwards drive-pipe for two wells having been procured, the work of replacing the collapsed casing by drive-pipe at No. 2 and the work of drilling No. 5, will begin.

Six weeks since, two carloads of drive-pipe were ordered by us, and as soon as this is received, a third crew will begin the drilling of No. 6.

With ordinary diligence and success, all these six wells can be completed and put on the pump by the time reservoir No. 1 can be roofed and sealed. In the meantime the flow

from all our wells is being stored in sump holes.

It will be seen that the final completion of reservoir No. 1 will mark an important point in the history of this company.

The last of the company's stock offered at \$3.00 per share was sold on the 10th inst. and the following is the disposition made of the 49,925 shares of stock remaining in the company's treasury at the beginning of operations:

25 shares were sold at \$10.00 realizing.. \$250.00  
19,900 shares were sold at \$ 2.00 realizing.. 39,800.00  
20,000 shares were sold at \$3.00 realizing.. 60,000.00

Total amount realized, \$100,050.00

Ten thousand shares remain unsold and these will be sold at \$5 per share.

Respectfully,  
JOHN M. WRIGHT,  
President.

### Flowing Wells of the West Side, Coalinga.

Just at this time, when so many of the wells on the west side are developing to what might be called "gushers," it seems an article on this subject would not be amiss. The Section 7 Oil Company's No. 1 well heads the list as the largest producer in this part of the field, and perhaps in the whole Coalinga field. The next largest producers are the Esperanza numbers 1 and 2. Each of these wells will make over 400 barrels a day. Penn-Coalinga numbers 1 and 2 are both good producers, and if packed will flow. The New San Francisco Crude No. 2 is flowing at the rate of about 400 barrels a day. The Commercial Petroleum number 2 flows at the rate of between 300 and 400 barrels a day. The K. C. number 2 is flowing and in addition there are other wells on the west side that will flow if packers are put in them.

These wells are situated on land covering a little more than two square miles, but prove a large amount of territory that will be operated on in time. Part of the land will be developed at once. At present the west side is showing up as well, if not better, than any part of the Coalinga field.—Coalinga Oil News.



### We Build Galvanized Iron Tanks

For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank. Being situated near the Coalinga fields, we are in a position to make extremely low prices. We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

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HANFORD



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### Colusa.

W. E. Youle, the veteran oil man returned Sunday from Colusa county where he has just put a well down 1,500 feet. A well that Mr. Youle located in that county is now producing oil in paying quantities. Work is now being pushed on the Ukiah Oil and Development company's well.—Ukiah Press.

#### Fullerton.

The board of trade of Fullerton has received several answers to the letter sent out to oil companies requesting donations for the purpose of building a miniature derrick, to be placed in the Los Angeles Chamber of Commerce, and prospects are good for securing one fine model complete from R. H. Herron & Co. of Los Angeles, through Fred T. Perris, manager of the Santa Fe Railway Company's oil properties. Secretary Wiggins, of the Los Angeles chamber, says he will be glad to give a separate table for this exhibit. Arrangements are now being made to place the exhibit there by the first of next month.

#### Kern.

The Nevada County, on 30-28-28, is just finishing its well, No. 14, at Kern River.

The county road to the oil fields has been greatly improved by the use of oil under the supervision of Supervisor Jastro. The road has been well oiled and will improve as the dirt packs.

The Columbian on 29-28-28 at Kern River is about to drill seven additional wells on its property and is at work on the first of this number. The company already has five completed and pumping. It is a San Francisco corporation and Mr. Culburn is the superintendent.

The Potomac Oil Company, which is now successfully pumping nine wells in the northernmost part of the field, intends to sink six new wells this winter. Superintendent Ritchie is now getting his property in shape for good results. He has a reservoir with a storage capacity of 8200 barrels.

The Sacramento, on the same section close to the Sterling, is about to begin extensive drilling operations on its property. One rig is already up for work. There are seven wells now complete and others to be added. The action was determined upon at a recent meeting of the directors in Sacramento.

Cheney Brothers of Sunset have been awarded the contract for hauling and delivering the pipe for the Jewett & Blodget pipe line and for building a large reservoir for storage at the railroad terminus. The Cheney Brothers have just finished building a large reservoir for the Fulton. This means that the work on the line is to go right ahead at the earliest possible moment.

The Lackawanna, the new company just organized by Dr. A. H. Liscum of the Vesta, and located on 31, 28-28 at Kern River, has just erected the rig for the first well. The company was at first called the Manhattan, but when the time came to incorporate it was found that another California corporation had already taken that name, so that a change was rendered necessary. Drilling will commence at once.

The Lackawanna Oil company is among the new operators in the Kern River field. The company recently secured a tract of land on the southeast quarter of section 30, 28-28, and is already making plans for drilling ten

wells, active operations to begin at once. The necessary equipments have been purchased and will be installed without delay. Elmer E. Jones is superintending the company's work.

The Argentine Oil company has commenced a suit in the United States circuit court, Los Angeles, against Jesse B. Dover et al. to quiet title to and secure possession of the W½ and NE¼ of section 25, 32-23, this county. There are a large number of defendants in the case. The lis pendens has been filed in the county recorder's office.

F. B. Ault has contracted for the material and will shortly erect a new two-story frame hotel building at Maricopa, the proposed terminal of the Sunset railway extension. The building will occupy a location opposite McElvaney & Torpey's store and will be fitted up for the accommodation of visitors to that portion of the Sunset oil field.

The California Combined after a period of hard luck will shortly have its well on the beam. Manager G. F. Abbott has been here from Oakland for several days past and has succeeded in clearing the well, so that production of oil will shortly begin. This company has had to contend against some bad luck but the management has never grown discouraged and Superintendent Abbott is much encouraged over the present outlook.

The Dayton, J. B. Batz, manager, has prosecuted its drilling successfully, and its new well on 9-32-23 is in sand of the finest quality and it is estimated that the well is easily good for 300 barrels a day. The casing was perforated on the 2nd inst., and while the well has not been pumped, it gives evidence of being one of the best producers in Sunset. The Dayton is operating on Occidental land and by bringing in this well 320 acres of the last named company's land are practically proven.

There was a time in the history of the Kern River oil field when the air compressor had a great vogue, but, judging from appearances, that day has passed away. A central engine house, with steam pipes leading to the various pumps, is now considered to be the correct way of pumping oil from the wells. The steam is conveyed in pipes to pumps at the wells and are working satisfactorily, while much trouble was experienced with the air compressors and pumping jacks.

A suit has been filed in the superior court of Kern county on behalf of the Visalia Midway Oil company to quiet title to its lands in the Midway field, known as lots 3, 4, 5, 8, 9, 10 and 11 in section 6, township 32 south, range 23 east, and lots 1, 2, 3, 4, 6 and 7 in section 7 township 32 south, range 23 east, M. D. B. and M. The defendants, named as claiming an interest in the property are: J. W. Jameson, T. J. Wrampetmeier, I. Strassberger, Midway Oil company, Charles S. Hall, G. H. Yost, W. H. Kountz, Isadore Golden, Middle California Oil Land and Development company, Chanslor-Canfield-Midway Oil company, David W. Edwards, H. W. Brodbeck, G. W. Brodbeck, W. A. Colwell, V. E. Colwell, M. J. Edwards, A. Brodbeck, K. Brodbeck and E. J. Boust.

Something of the value of the proven lands in the Kern River fields may be gathered from the statistics of the production of the Illinois Crude and Peerless companies. The former has a well

on 32-28-28, just north of the Claremont property, which is claimed by its owners to have brought in \$15,000 during the past year. Another well, the No. 6 of the Peerless, has earned \$39,000 during the two years and four months just past. In each case by far the greater portion of this amount was profit, the expenses being insignificant in proportion. When it is considered that most of this oil was sold during the period of depression in the market, and that the present price averages only about 20 or 25 cents a barrel at the most, it will readily be seen how great the production must have been.—Californian.

It is reported that the Spreckels-Crocker-Woolworth people have, in addition to their control of the Monarch property at Sunset, absorbed the several leases of that company—the Obispo, the Copper Consolidated and the Tremont, all on section 2 says the Bakersfield Californian. These properties have all good, producing wells. It is also the belief among oil men here that the same people have purchased the Clark-Bryan-Wilson property, on 3-11-24, which was sold a short time ago, the purchase price being \$40,000, according to the reports. This deal was managed by Anderson & Kaye of this city, who decline to give the names of the purchasers. The property consists of 120 acres. The Spreckels-Crocker-Woolworth people are the owners and operators of the Pacific Oil Transportation Company, one of the largest handlers of oil on the coast. This company operates its own steamers and refineries.

#### Los Angeles.

A fire at the Pacific Oil refinery plant at Los Angeles on Thursday of last week entailed a loss of \$5,000.

The Berkeley Oil company has made application to the superior court of Los

Angeles county for permission to voluntarily dissolve the company.

One of the pumping plants of the Parker Oil company, in the Los Angeles city field, was destroyed by fire August 20th, together with a tank of oil. The cause of the fire is unknown. The loss will amount to \$200.

Mayor Townsend, of Long Beach notified the council that suit had been begun against the city by the Dustless Roads company of Los Angeles for alleged infringement of patents on a road-oiling process. When the contract for oiling the city streets was given C. E. Lapp he gave a bond for \$2,500 to hold the city harmless in case such a suit should be brought, consequently the trustees are losing no sleep over the matter.

The citizens of Los Angeles will soon be able to congratulate themselves upon the fact that the unpaved streets will be dustless and mudless, instead of both, as at present. The city engineer has been instructed to amend specifications for the improvement of city streets so as to provide for the use of oil in top dressing. Councilman Nofziger explained to the other members of that body that it is intended to arrange for the admixture of oil with the gravel to a depth of four or five inches. President Bowen indorsed the project, and the motion seconded by Mr. Skilling was adopted by a unanimous vote. Experiments have satisfied the council that the use of oil may be extended to graded streets with profit, the waste of water in sprinkling thus being avoided.

#### Santa Barbara.

Pinal well No. 1, in which work is still progressing, spouted for a time Saturday evening. The pipe-line to Graciosa furnishes all the oil that can be disposed of at present. The deal with the

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Branches:

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Standard Oil company, heretofore referred to, is not yet completed.

Messrs. Barneberg, Carpenter, Venable and Barnard have returned from their trip to the Santa Maria oil fields and report much activity and the field full of new men and schemes, says the San Luis Obispo Tribune. The Brookshire Oil company held a meeting and decided to begin at once on well No. 2. Fully 100 feet of gravel and a very strong flow of water was struck in No. 1 and with the size of casing in use it was found impossible to go through the gravel and get the water cased off. It is believed to be probable that the water struck feeds Guadalupe lake. The striking of water has proved more fortunate than otherwise as the scarcity of water for drilling purposes is such that an income of \$200 to \$300 a month will be derived from the water well. The location of Brookshire No. 2 was made about a quarter of a mile west and south of No. 1 and on higher ground so as to avoid the water channel if possible.

#### Santa Clara.

Colonel E. J. Bean and Edward Fox, representing John Martin and other capitalists, have hauled an oil rig to the Westdorp place, Casserly district, and will bore for oil. A few days ago A. S. Cooper, ex-State mineralogist, and F. M. Anderson, an oil expert for the Southern Pacific company, were inspecting the oil territory in the Sargent and Gaffey districts. Both gentlemen expressed themselves as being favorably impressed with the oil prospects of this section. It is probable that considerable development work will be done in this neighborhood in the course of a few months.—Watsonville Register.

#### Petroleum as an Anesthetic.

It has been known for some time that workmen whose business it is to handle petroleum or its distillation products often present an intoxicated appearance if left in badly ventilated places where the products are kept for a varying period of time. It has especially been frequently seen in America that the employees of works where crude petroleum is distilled showed symptoms of the form of "intoxication" which accompanies the inhalation of petroleum vapors, mixed with atmospheric air, by breathing the vapors liberated by the most volatile product of petroleum, commonly called "ether" or "petroleum essence."

In the course of an interesting article in which the matter of petroleum essence as an anesthetic is dealt with, La Vie Scientifique says that chloroform and ether—which are, as is well known, used very extensively as anaesthetics—produce to the patient receiving them by means of respiration an intoxicated feeling resembling that following alcoholic abuse before insuring unconsciousness, being also attended by a certain amount of danger. It is, therefore, only natural to believe (says our contemporary) that the vapors from ethers and essences furnished by the distillation of American or Russian crude petroleum possesses anaesthetic properties analogous to those produced in the case of animals by the inhalation of vapors from chloroform or ordinary ether; and in this connection a number of experiments have been made by M. Buguet, which, though incomplete inasmuch as they only relate to small animals, have led the author to some interesting results. He caused a number of

small animals of different species—such as frogs, lizards, etc.—to breathe a mixture of air and petroleum vapor, eliciting the most satisfactory results from an anaesthetic point of view. By suspending the action of the petroleum the animals recovered consciousness with remarkable ease and without danger, very quickly resuming their normal condition, while when experiments made with chloroform upon these animals death often ensued if they were submitted to its action for any length of time. Other experiments were carried out by the author with similar results.

These experiments cannot fail to be of interest as showing the role which petroleum is likely to play in the future as an anaesthetic, the price of petroleum being, moreover, so very much lower than that of ether. It will also be of interest to await more detailed study of this latest use of petroleum in regard to surgical operations on the human organism.

#### Settles the Dust.

Now that J street has been oiled and gives promise of becoming in very short time a splendid, smooth and dustless driveway, it is time to begin taking action toward putting every street in town in the same condition.

Enough has already been done to show that the great clouds of dust which drive along our streets every windy day can be dispensed with, and as this can be done at no great expense it should be done. True, the first cost is quite an item, and the oiling each year for about three years would cost, perhaps, slightly more than the continuous operation of the sprinkling wagon. But after this, when the street

has for some depth become impregnated with the oil, and the oiled streets will eventually cost much less than our present streets, with a sprinkler soaking them continually with water in an ineffectual attempt to stop the drifting dust and sand.—Modesto Herald.

#### Keep Your Word.

What a fine thing it is to keep one's word and to keep it always! One doesn't realize the full value of so doing until one has had dealings with persons and companies not scrupulous in this regard. Then the force of the seemingly small matter breaks upon the conscience, and another example of the greatness of little things is added to our already long list. Be exact. Say just what you mean, and if you can't mean all you say, keep still. The world may go next door once or twice, but it will be disappointed there finally, and at length the world will come to you. The world, as a rule, likes to deal with self-respecting persons. The world very often has pictures to hang.—Oil City Blizzard.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

Subscribe for the PACIFIC OIL REPORTER.

### Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NATURAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.									
	Gallons	Value	Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Re-iduum, including Tar and a l other from which the light bodies have been dis- tilled.			
			Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Bbls.	Value
June, 1903.												
British Columbia.....								482	\$165			
Costa Rica.....					800	\$186		25	7			
Guatemala.....					4,500	896		2,634	1,123			
Honduras.....					820	158						
Nicaragua.....					500	110						
Salvador.....					290	58		345	107			
Mexico.....					500	75		20	6			
Chili.....								2,970	272			
British Australasia.....								1,434	418			
French Oceanica.....					250	53						
German Oceanica.....			330	\$73	1,235	256						
Alaska.....	840,000	\$28,000	38,700	8,601	31,480	6,684		2,204	1,053			
Hawaii.....	2 343,770	78,659	8,240	1,311	19,500	3,976		17,719	8,241			
Total.....	3,183,770	\$106,659	47,270	\$9,985	59,875	\$12,452		27,833	\$11,392			
July, 1903.												
British Columbia.....								169	\$60			
Costa Rica.....					650	\$126		82	22			
Guatemala.....					3,440	701		1,020	491			
Honduras.....			630	\$125	2,130	410						
Nicaragua.....								30	11			
Salvador.....			1,100	187	1,100	165		146	71			
Mexico.....								438	191			
British Australasia.....								3,000	555			
French Oceanica.....					140	29						
German Oceanica.....			8,030	964								
Alaska.....					2,634	367		622	375			
Hawaiian Islands.....	3,318,000	\$110,600	46,825	5,682	25,750	5,145		7,918	2,250			
Tutuilla.....					100	24						
Total.....	3,318,000	\$110,600	56,585	\$6,958	35,944	\$6,967		13,425	\$4,159			
August, 1903.												
British Columbia.....					300	\$70		2,165	\$929			
Costa Rica.....					800	167						
Guatemala.....			440	\$107	4,890	1,032		230	63			
Honduras.....					300	72						
Salvador.....					340	66		20	5			
Mexico.....					7,200	1,377		28,660	6,319			
Peru.....								1,360	272			
British Australasia.....								722	187			
French Oceanica.....					90	19						
German Oceanica.....			15,160	1,822								
Alaska.....			14,400	3,211	38,149	6,830		558	329			
Hawaii.....	1,365,000	45,500	32,237	3,723	293,770	41,101		16,777	5,441			
Tutuilla.....					400	116						
Total.....	1,365,100	\$45,507	62,237	\$8,863	346,299	\$50,850		30,744	\$13,545			



### Water Exclusion in Petroleum Wells by Refrigeration.

For some time the German firm of Gebbhard & Co., in Neuhausen, has employed in its tunnel works a peculiar method for the exclusion of water by means of freezing the earth. It is evidently an amplification of the method of sinking a shaft devised by the Swedish engineer, Mr. Peotsch, which has already been in practical employment in special cases. The firm of Gebbhard & Co. intends to adjust its method for the purpose of water exclusion to the drillings for petroleum and sent a delegate to Baku in order to effect an agreement with the firm of Nobel & Co., relative to the introduction of this method in the wells of Nobel & Co. According to the reports of the Baku papers the introduction of the refrigerating method for the purpose of water exclusion requires a free intermediate space of six inches around the pipes. In this intermediate space three and four-inch pipes carry the cooling fluid, which is produced by a separate apparatus according to a patent of the firm of Gebbhard & Co. In order to partially bring the cooling fluid into action—that is upon the water containing strata—the pumping pipes must be surrounded by a heat excluding device. In this manner it should succeed, in a week's time, in freezing the water for a space of about six fathoms and the preservation of the frozen condition of the earth entails no

further difficulty.

The main defect in this projected method existed in the very considerable contraction in the diameter of the well. Thus, for example, a 16-inch well must be reduced to 10 inches by a single exclusion of the water, and since it is often necessary to exclude the water in several horizons the impossibility of the application of this method in such cases appears, if one does not resort to obtaining oil by means of air pressure. These considerations were reasons why the negotiations with the firm of Nobel & Co. were not concluded and the agent of Gebbhard & Co., returned to Neuhausen in order to obtain further instructions.—Naphtha.

### Trouble with Well Number 3 at the Pinal.

A Santa Maria special to the San Luis Obispo Tribune of the 11th says: A most remarkable and peculiar circumstance occurred this forenoon about 10 o'clock at Pinal Well No. 3. This well is known to be a pretty good spouter, having sent barrels of oil above the derrick on many occasions.

This well for some time has been on its good behavior and flowing oil steadily into the Graciosa pipe line. But to-day while some changes were being made at the well, the casing projecting above the well gave way on one side and sent a stream of oil across the canyon 300 feet smashing the windows of the bunk house and flooding it with oil. No one was hurt and the well was soon brought under control again.

## Wyoming Oil Lands

I have just secured control of over 3,000 acres of valuable oil land, located in the famous Uinta county oil field, where recent discoveries of oil have caused such wide-spread excitement. This land is mostly in the recognized oil belt, directly north and south of the producing wells and but a short distance from the big well brought in August 24th.

The present owners of this land are unable to develop it on account of lack of capital, and I am enabled to offer it at a figure too low to publish. Will be glad to give a full description of the land to parties meaning business.

**E. S. EASTMAN,**  
Evanston, Wyoming.

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# PACIFIC OIL REPORTER'S

## OIL LAND DEPARTMENT

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Oil Lands Exclusively**

### Developed Property in Sunset for Sale Cheap



The Land Department of this paper has had placed with it for disposal a 20-acre lease in the Sunset District on terms that make it a most inviting proposition. The property has one good well on it with standard rig, boiler, engine, etc. The land is most beautifully located for operating and is surrounded close up by some of the best known companies in the Sunset field. The new Jewett & Blodget pipe line crosses this land and it is within easy reach of the railroad station. The lease has seven years yet to run on a sixth royalty basis. The principal owner of this property is going east to reside permanently and is desirous of closing out all his interests here.

The price asked for this lease is extremely low considering the productive capacity of the land.

Parties desiring a productive property in the heart of one of the richest oil fields in the State, at a sacrifice price, will do well to investigate this.

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## LAND DEPARTMENT, PACIFIC OIL REPORTER

**U. M. THOMAS, Manager**

318 PINE STREET

- - - - -

SAN FRANCISCO, CAL.



## Recent Patents.

The following recently granted patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Means for cleaning pump shafts in well casings, J. W. Alvord, Chicago; No. 735,690.

Well drilling machine, I. S. Ausherman and D. S. Ausherman, Zion City, Ill.; No. 735,694.

Drills for deep wells (3), Pattillo Higgins, Beaumont, Texas; Nos. 735,767, 735,768 and 735,769. Reamer for deep wells, same; No. 735,770.

Well drilling machine, R. D. Patterson, Okemah, Ind. Ter.; No. 735,898.

Well borer, R. E. Brown, Lennig, Va.; No. 736,201.

Well drilling apparatus, Henry Kelly, Los Angeles, Cal.; No. 736,267.

Sucker rod connector, F. M. Egbert, Bairdstown, Ohio, assignor to G. C. Lefler, Marvel, Ohio; No. 736,371.

Apparatus for deodorizing and purifying petroleum, Friedrich Berg, Warrensville, Ohio; Nos. 736,480 and 736,479.

Bail for sand pumps, Robert Cryster, Gibsonia, Pa.; No. 736,696.

Well drilling machine, G. A. Gilborne, Aberdeen, South Dakota; No. 736,716.

Casing spear, E. C. Wilson, Los Angeles, Cal.; No. 736,907.

Well drilling machinery, D. A. Messner, Akron, Ohio; No. 736,993.

Casing spear, R. I. Henderson, Cairo, W. Va.; No. 737,101.

Oil pump, G. C. Richards, Berkeley, Cal.; No. 737,274.

Oil pumping apparatus, F. C. Cain, Beaumont, Texas; No. 737,336.

Well drilling machine, W. M. & C. M. Denning, Tollgate, W. Va.; No. 737,911.

Deep well pump, N. A. Heyman, Los Angeles, Cal.; No. 737,928.

Casing head, John Cochran, Bealls Mills, W. Va.; No. 738,001.

Well cap, W. F. Shutt, Onward, Ind.; No. 738,126.

Drill and reamer, Pattillo Higgins, Beaumont, Texas; No. 738,327.

## Enjoying Himself.

A fond mother sent her small boy into the country, and after a week of anxiety received the following letter:—

"I got here all right, and I forgot to write before. It is a very nice place to have fun. A fellow and I went out in a boat, and the boat tipped over, and a man got me out and I was so full of water that I didn't know nothing for a long while. The other boy has to be buried when they find him. His mother came from her home and she cried all the time. A horse kicked me over and I have got to have some money to pay the doctor for mendin' my head. It was broke a bit. We are going to set an old barn afire to-day, and I am not your son if I don't have some fun. I lost my watch and I am very sorry. I shall bring home some snakes and a toad and I shall bring home a tame crow if I can get em' in my trunk."

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, September 16th:

## ALMA.

700 at 1 35..... \$ 945 00

## ASSOCIATED OIL CO.

2,000 at 22..... 440 00

## CALIFORNIA STANDARD.

300 at 11..... 33 00

## CARIBOU.

385 at 1 00..... 385 00

300 at 1 02½ (S 90)..... 307 50

100 at 1 05..... 105 00

5,500 at 1 10..... 6,050 00

## ESPERANZA.

1,000 at 1 25..... 1,250 00

## HANFORD.

1 at 130 00..... 130 00

## HOME OIL.

15 at 80..... 12 00

200 at 85..... 170 00

100 at 85 (S 60)..... 85 00

300 at 87½..... 262 50

400 at 87½ (S 30)..... 350 00

100 at 90..... 90 00

## INDEPENDENCE.

2,000 at 17..... 340 00

2,000 at 18..... 360 00

1,500 at 18 (B 60)..... 270 00

## KERN.

11 at 5 00..... 55 00

200 at 5 00 (S 90)..... 1,000 00

## KERN RIVER OIL.

50 at 15 00..... 750 00

## LION.

2,000 at 04..... 40 00

## MONARCH.

500 at 53..... 265 00

3,400 at 55..... 1,870 00

200 at 56..... 112 00

## MONTE CRISTO.

400 at 75..... 300 00

700 at 77½..... 542 50

500 at 80 (B 90)..... 400 00

## OCCIDENTAL OIL.

2,800 at 19..... 532 00

1,000 at 20 (B 90)..... 200 00

## OIL CITY PETROLEUM.

200 at 30..... 60 00

1,100 at 30 (B 5)..... 330 00

## PITTSBURG OIL.

1 at 25..... 25 00

## REED CRUDE.

100 at 42..... 42 00

## STERLING.

400 at 2 70..... 1,080 00

## SOVEREIGN.

100 at 37..... 37 00

2,400 at 38..... 912 00

## SUPERIOR.

2,000 at 06..... 120 00

## TOLTEC.

200 at 20..... 40 00

34,163 Shares Amount \$20,272.75

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.40	
Apollon.....	.40	.45
Asso. Oil Co Stk. Tr.		
Certificates.....	.21	.22
Aztec.....		
Bay City.....		
Bear Flag.....		
California Standard...	.11	.12
Caribou.....		1.10
Central Point Con....	.65	.70
Chicago Crude.....	.20	
Clairemont.....	.23	
Esperanza.....	1.22½	
Fauna.....		
Four.....	.67	.69
Fulton.....		3 00
Giant.....		
Hanford.....	128.00	132.00
Home.....	.85	.87½
Homestake.....		
Imperial.....		
Independence.....	.17	.18
Junction.....		.21
Kern.....		4.87½
Kern River.....		20.00
Lion.....	.03	.04
Monarch of Arizona...	.55	.56
Maricopa.....	.74	
McKittrick.....		
Monte Cristo.....	.75	.77½
Nevada.....		
Occidental of West Va	.19	.20
Oil City Petroleum.....	.30	
Peerless.....		
Petroleum Center.....		
Pittsburg.....	.26	.35
Piedmont.....		
Reed Crude.....	.41	
S. F. & McKittrick...	2.75	
San Joaquin O. & D.....		
Senator.....		
Shamrock.....		
Sovereign.....	.38	.39
Sterling.....	2.75	2.85
Superior.....	.06	
Thirty-three.....	7.25	7 75
Toltec.....	.20	.21
Twenty-eight.....	3.50	
Union.....		
United Petroleum.....		
West Shore.....	2.90	4.00
Western Petroleum.....		
Wolverine.....		

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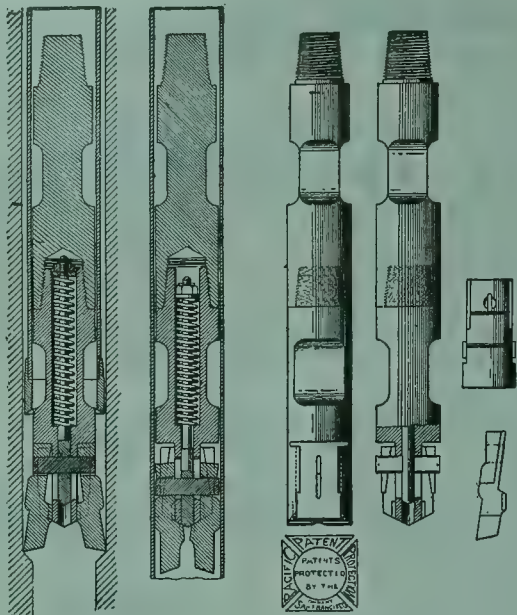
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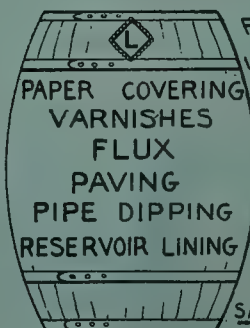
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Vol. 4. No. 47.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 26, 1903.

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Vol. 4. No. 47.

SAN FRANCISCO, CAL., SATURDAY, SEPTEMBER 26, 1903.

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Published Weekly  
The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

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### ANTI-CLINALS.

Sixty thousand dollars for Lou Dillon. It takes money to make that mare go.

The price of hops has gone up. This will not necessarily stop beer from going down.

Mark Hanna advises the voters of the country to "let well enough alone." Evidently Mark is pretty well satisfied with Hanna.

"A guilty conscience doth make cowards of us all." Every time a San Francisco postoffice official looks a postage stamp squarely in the face he turns pale, it is said.

As Thanksgiving time approaches the Russian bear, the British lion and the American eagle are watching that Mohammedan fowl with more than ordinary interest. In spite of all this the old bird may furnish a feast for a Bulgarian holiday.

A machine for laying brick has been invented and is said to work successfully, from which we infer that it is arranged with a contrivance of some sort for yelling "mortar" every five minutes at the hod-carrier and that it is timed to either break down or go on a strike every time the contractor gets in a rush.

The weather, always a fruitful source of small talk and idle conversation, is leaving nothing to be desired these days. With snow and blizzards in Colorado and the Dakotas, frost in Florida, cyclones and hurricanes in the Atlantic states and earthquakes in California, there is no excuse for talking about your neighbors.

The supervisors of San Francisco county have passed an ordinance prohibiting the burial of dead bodies within the county and the supreme court has affirmed the legality of the law. Some think it a move in favor of the crematories and others that it is to reduce the death rate. The real truth is the supervisors do not see what anybody who lives in San Francisco wants to die for anyway.

Talk about marrying in haste! The other night down at Fresno a commercial traveller was married to a young lady in an automobile

while speeding along Kearney avenue at the rate of thirty miles an hour, with W. Parker Lyon, the Fresno clown, acting as bridesmaid, and "Windy Sam" Griffith as best man. If this newly wed couple can keep up this pace through life and not melt the tires they will be entitled to a perpetual complimentary in the front row next to orchestra.

### A Young Hustler.

Everybody admires and honors a successful business man, but when he attains success under trying circumstances and in the face of obstacles that would dissuade men of more mature age and far greater experience, he is entitled to double honor. Such a man is Robert Hays Smith, the hustling young oil operator of the Coalinga field. Mr. Smith has not yet reached his twenty-seventh birthday. He came to California a little more than two



ROBERT HAYS SMITH.

years ago fresh from a law school in his native state, Pennsylvania, and, after looking over the state decided that the Coalinga oil fields offered about the best inducements to a young man of anything he had seen, and securing a lease of eighty acres on section 36, 19-14, returned to Pennsylvania and organized the Philadelphia-San Francisco Oil company and at once began development work. Success followed and he immediately set about to secure more land and organize another company. The York-Coalinga company located on section 6, 20-15, the Penn-Coalinga on section 1, 20-14, followed in rapid succession. Both of these companies have splendid holdings and fine wells. Having associated another hustling young lawyer with him, J. L. Bryner, of Carlisle, Pennsylvania, the firm began to make even more rapid strides forward. They purchased twenty-acres in section 12, 20-14, for \$3,000, which is now held at \$100,000. They next organized the Section Seven Oil company, having secured a forty-acre tract from the railroad company in the northwest corner of section 7, 20-15, one-half mile south of the Esperanza well, and down on the plain where the croakers said there

was no show of getting oil. The results of their efforts here are being heralded all over the world and is attracting more attention to the Coalinga field than even the famous "Blue Goose" well did in the early days of its history. The firm of Smith & Bryner at once came to be looked upon as "sure winners". A well that is producing oil at the rate of over \$200,000 worth per annum, another ready to bring in and a derrick and rig up and ready for a number three are the best evidences in the world of push, energy and prosperity. But this is not all. The firm of Smith & Bryner has secured, with other well-known oil men, a lease of forty acres in the southeast corner of section 12, 20-14, and will at once begin work on the tract, which lies midway between the Section Seven well and the big well of the Union Oil company just being completed. In addition to this they hold leases on section 25, 20-14, and on section 23, 20-15, in all 700 acres in the Coalinga field.

The firm has also branched out and are doing development work on a tract of 2,000 acres which they have secured in the Devil's Den district in the northwestern part of Kern county. Others have tried this district with indifferent success, but if the firm of Smith & Bryner do not get oil there it will be because it is not there to get.

### EDITORIAL NOTE AND COMMENT.

We have received a letter during the week from a subscriber in the East asking us to stop his paper for the reason that we "laud a company very highly when successful and make no mention of same when on the down grade." He cites a certain company in which he is a stockholder and thinks we should "roast" it for making a failure. He has unwittingly paid us a high compliment. We would rather be accused of helping to build up than helping to tear down. Many a company gets in hard straits and a "roast" from a newspaper does the business. But if a company is dishonest and resorts to illegitimate methods, and we are furnished with the evidence, we will expose it. That is the extent of our duty. Many a man who makes a bad investment in oil stocks in trying to excuse himself lays the blame on innocent shoulders. If this man will continue to read the PACIFIC OIL REPORTER it may save him from further failures in this line.

### The Esperanza Oil Company Moves to this City.

The head office of the Esperanza Oil company has been removed from Hanford to the Haywards building in this city. A meeting of stockholders was held at Hanford last Saturday and the following new directorate was chosen: John A. Bunting, W. L. B. Mills, G. A. Scott, W. W. Parlin and C. M. Kilbourne, of San Francisco; G. E. Shore and W. J. Newport, of Hanford. The new board organized by electing Mr. Bunting, president; G. E. Shore, vice-president; G. A. Scott, secretary.

The company has just finished No. 3 well and will start on No. 4 this week. Development work will be pushed along uninterruptedly on the Coalinga lease.



## A WORD TO OIL COMPANIES.

This office is continually receiving inquiries about this and that oil company. What is the company doing; are its holdings valuable; what is its stock worth, are the usual questions asked. Usually the company inquired after is some wild-cat affair that had a precarious existence and then vanished from sight, and of which we know little or nothing. But occasionally a stockholder in some well-known company writes us to tell him what the company is doing. To gather the information desired always requires a considerable expenditure of time and effort on the part of this office and then nearly always the report we make is unsatisfactory. This office does not desire to become a bureau of information on oil companies, and to discourage inquiries of this sort has adopted a rule of charging a fee of \$2 for making reports. But in spite of this the inquiries continue to come in.

While we delight in serving our friends and patrons in every reasonable way that we can a moment's reflection will convince you how easily we may be deceived in our efforts to get reliable information. It is impossible for us to know the value of every piece of alleged oil land in the State, whether developed or otherwise, and so we have to go to some officer of the company for this information as well as for information about the prospects of the company, etc. If the officer is honest we may get the truth. Oftentimes we do not. If the officers are honest and have a conscientious regard for duty they will keep their stockholders informed about the company. When they do not the stockholder appeals to us and then it becomes our duty (as the inquirer thinks) to worm this information out of the officers or else give our judgment or opinion as the case may be.

A company that does not make regular and comprehensive reports to its stockholders may usually be regarded with suspicion. This office will hereafter make this reply to all inquiries. We shall also open an inquiry department in the paper in which we shall publish these inquiries. If the companies inquired after desire to reply they can do so and their replies and explanations, if brief, will be published and treated with all due consideration.

This paper has always published condensed reports of oil companies and will continue to do so with pleasure, but henceforth we will not attempt to conduct a secret information bureau.

A law should be enacted compelling oil companies to publish in some way regular reports, just as is required of banks, insurance companies, etc. When the oil stock corporation is put on an equal footing with banking and like corporations doing business with the public it can claim, and will get, the confidence of the public in the measure it deserves. As it is oil companies, until their nature and character is actually proven, are regarded with more suspicion than attaches to any other industrial corporation. The reason for this is apparent to everyone. It will be different when the laws that govern some other corporations are applied to oil companies.

The PACIFIC OIL REPORTER is the only exclusive oil paper on the Pacific Coast. More than that it is the only weekly paper in the United States devoted EXCLUSIVELY to the oil industry.

## THE PRICE OF OIL.

Experiments made in the chemical laboratory of the University of California have demonstrated that the heating value of California petroleum is between 10,000 and 11,000 calories, averaging about 10,500 calories. The best coals of the Pacific Coast average 7,000 to 8,000 calories; the usual steam coal, much less. Comparing the cost of oil at \$1.25 to \$1.50 per barrel with the cost of coal on the basis of the theoretical heating values, a ton of oil would be worth \$6 to \$8, against coal at \$8 to \$9. The actual difference is very much greater than this, since there is much less waste in oil heating. Numerous actual experiments made under boilers have shown that 4 to 4.5 barrels of oil are equivalent to 2,240 pounds of good coal.

Quotations for Pacific Coast coals to dealers are as follows: Wellington and New Wellington, \$8; Richmond, \$7.50; Roslyn, \$7; Seattle and Bryant, \$6.50; Beaver Hill and Coos Bay, \$5.50; White Ash, \$5.25. For Rocky Mountain coals to dealers quotations are: Colorado anthracite, \$14; Castle Gate, Clear Creek, Rock Springs and Sunnyside, \$8.50. Eastern coals are nominal at \$14 for Pennsylvania anthracite and \$13 for Cumberland, the latter being rather scarce. For foreign coals, in cargo lots, prices are: Welsh anthracite, \$13; Cannel, \$8.50; Brymbo and Wallsend, \$7.50.

The present selling price of fuel oil in San Francisco is about 70 cents per barrel. In the face of the actual, demonstrated value of oil as compared with coal there is no valid reason why it should not be selling for \$1.50—more than twice what it is bringing. Every consideration of business equality requires that either the price of oil must advance or that the price of coal must decline. There is little or no probability of coal going much below present quotations. That oil must advance is the inevitable conclusion.

But why don't it advance, inquires the producer. As a matter of fact it is slowly advancing in certain quarters with promise of a general movement all along the line. That it is not fetching more today is due to the producers themselves. So long as the Standard Oil, the Southern Pacific and the other big marketing and consuming companies could buy all the market and their needs demanded at 20 and 25 cents, there was no obligation resting on them to advance the price. Kern River and Coalinga fuel oil should bring 65 to 70 cents at the wells, the price paid for Coalinga gas oils, and the price can be brought up to that figure if the producers will get together and stand together and refuse to sell for a less price.

As for the Standard, we believe it would as soon pay this price for oil as to pay what it is at present, since it is able to fix the price to consumers. But the big consuming companies like the Southern Pacific company, the United Railroads of San Francisco and other like companies, are exerting their influence to keep the price as low as possible. Let the producing companies get together and advance the price to a figure that is warranted by every consideration of good business sense and justice. It can be easily done. Will they do it?

The new refinery at Corsicana, Texas, built by the San Jacinto Oil Co., but leased to the Richardson-Gay Oil Co., is in operation.

B. B. Mungess, of El Paso, Texas, who recently returned from Nicaragua, says he believes that both oil and coal will be found in that country in large quantities.

## A High Tribute.

William Bowers Winn, the editor and proprietor of the PACIFIC OIL REPORTER, died at his home in Berkeley last week.

Mr. Winn and his paper have been instrumental in bringing before the public, all over the country, the oil industry of California and near by states. The PACIFIC OIL REPORTER is to-day recognized as one of the best, if not the best, oil paper published in the United States, and to the personal efforts of Mr. Winn can be attributed its success.

We join with others interested in the oil industry, in sorrow at the loss of such a man, at such a time, and to the wife and children left behind we extend our heartfelt sympathy.—Coalinga Oil News.

## Special Edition for the Western Kern Fields.

Had Mr. Winn lived it was his purpose to have gotten out a special edition of this paper to be devoted almost exclusively to the Sunset, Midway and McKittrick oil fields during the present month. An announcement of this purpose some months ago brought in several hundred dollars' worth of special advertising contracts. The present management will endeavor to carry out this announcement and get out the edition some time during the month of October. No pains or expense will be spared in making this edition equal to any ever gotten out by this paper. The building of the Jewett & Blodgett pipeline, the extension of the railroad and other projections planned for the western Kern field makes it an auspicious time to give the field the publicity it deserves.

## The Great Pipe-Line a Success.

Where are the croakers who predicted a few months ago that the great pipe-line of the Standard Oil company, extending from the Kern county oil fields to the giant refining plant in this city, was a complete failure? Let him stand forth to-day in the face of incontrovertible facts and proclaim his wisdom about oil pipe-lines in general and this one in particular.

The Kern-Richmond pipe-line is a complete and unqualified success. The Record learns that the actual flow of oil through the line averages something like 800 barrels per hour, or 19,200 barrels every twenty-four hours, practically 20,000 barrels per day. Does this look like the failure that was predicted by the calamity howlers?—Point Richmond Daily Record.

## Uses the Williams Patent.

The "Delta" says that W. H. Worswick, of Hanford, was in Visalia Thursday last by invitation of a number of business men of that city who have paving work to be done. The pavements that Mr. Worswick laid in Visalia about nine years ago have become famous far and near because of their durability and general excellence. Mr. Worswick now has improved machinery that enables him to lay the same kind of pavement Visalia now has with more rapidity at much less cost.



# The Greatest Oil Field in Existence

## Such is Our Deliberate Opinion of the Coalinga Field.

When we proclaim to the world our deliberate opinion that Coalinga is the greatest oil field in existence to-day, it is not from any mercenary motives, nor because we have any prejudice against any other field in this State or any other state or country, but because we honestly and candidly believe the statement to be true. If capacity of wells were the only test we should have to yield the claim to the Sour Lake, Texas, field, as that field is producing now. Or if volume of production were the test the Texas, the Kern River, some of the Eastern and the Baku, Russia, fields would surpass Coalinga. But the real distinction, we claim, is not in the present producing volume as judged by comparison with older and more fully developed fields, but—

- (1) In the extent of proven territory;
- (2) The wide range in gravities of oil produced and their value;
- (3) In the proven capacity of the wells drilled;
- (4) In the economy of the drilling operations;
- (5) In the cost of production, and
- (6) In the probable life of the field.

These things considered together place Coalinga, we submit, in the lead of all other fields.

(1) In the extent of proven territory Coalinga leads all the great oil fields, as the following will show:

Baku.....	2,450 acres
Kern River.....	4,000 "
Sour Lake.....	400 "
Coalinga.....	5,000 "

(The figures for the Baku and Kern River fields are taken from an article recently published in this paper, from the pen of Dr. C. T. Deane, secretary of the Petroleum Miners' Association.)

(2) When the wide range of gravities is considered, Coalinga outstrips all rivals, producing oils from 12° Baume, in the southwestern part of the field, to 34° in the Oil City pool. This latter brings 65 cents per barrel and the former 20 cents at the wells. The highest gravity produced in the Baku field is 32° gravity (naphthene-base); the Kern River 17° and Sour Lake 24°.

(3) In the proven capacity of its wells Coalinga is equalled by Sour Lake only. A careful estimate of the average daily production of wells in the different districts gives Baku 150 barrels, Kern River 150, Sour Lake 1,500 and Coalinga 225.

(4) In the cost of drilling Baku leads with an average cost of \$30,000 per well. Kern River and Coalinga are about equal (\$3,500 to \$4,000) and, while we have no definite information as to Sour Lake wells, the depth of the wells and the trouble encountered in shutting out the various strata of salt water would indicate a cost considerably in excess of the California fields.

(5) The large average daily capacity of the Sour Lake wells brings the average cost of production in that field very low, but this is met in the Coalinga field by the higher price of oil at the wells. Sour Lake oil is selling at the wells now for as high as 30 cents, the price

fluctuating constantly, being offered as low as 10 cents but a few weeks ago. Coalinga oil brings from 20 cents for the cheapest grades to 65 cents for the highest grades. Prices in Kern River are the same as Coalinga for the same grades. Then the price of the land should be taken into consideration in this connection. Sour Lake land costs from \$20,000 to \$50,000 an acre; Baku lands from \$50,000 to \$75,000 an acre; Kern River from \$3,000 to \$5,000 an acre. Section 28, 19-15, in the Coalinga field, owned by the Hanford Oil company, is conceded to be one of the very rich-



No. 1 Well of the Section Seven Oil Co., Coalinga, Producing at the Rate of \$600 per day.

est sections of oil land in the State of California, if not in the world. On this section are wells that are producing as high as 600 barrels of 23° gravity oil daily, and yet the value of this land, as shown by the market value of the stock of the Hanford Oil company, is but \$420 an acre. About the highest price placed on land in the gusher district in the Coalinga field is \$2,500 an acre.

(6) The probable life of the wells. This can only be guessed at, to be sure. But the geological structure of the formation will aid in determining this approximately. It is conceded that Sour Lake will go as quickly as Spindletop. Wells that start off there at 10,000 barrels per day soon dwindle down to the hundreds. The geological formation in the Coalinga field indicates a long life of production. The formation is probably better defined there than in any other district in California. The sands are deep and prolific and there is little fear of water.

The Coalinga field has never been adver-

tised and boomed as some other fields have been, nor as it deserved to be. For some reason it seemed to have been black-listed. But all this has suddenly changed, and this fact is probably due to the advent into the field of the Standard Oil company. Even the Southern Pacific railroad company, which owns an immense acreage of the very cream of the field, was one of the very latest converts to the claims of the district. The attitude of the railroad company has suddenly become one of intense interest and support. The great spouting wells on the west side and the steady mammoth producers in the northeast end have silenced all croakers and convinced the most skeptical. We repeat what we said in the opening sentence, that—

**Coalinga is to-day the greatest oil field in existence.**

### Standard Oil Official Dead.

William Ogg, general superintendent for the Standard Oil company on the Pacific Coast, died at 6 o'clock last evening at the Grand hotel, where he had been ill for some time with spinal meningitis. His wife, who had been summoned in haste from the East arrived this morning only to find she was too late and that her husband was gone forever.

Mr. Ogg was about fifty-two years of age and had been an officer of the Standard Oil company for many years. He was a Mason in high standing and well known in many parts of the United States. During his illness telegrams were received from a number of prominent persons in different parts of the country inquiring about his condition.

The body was removed to Payne's undertaking parlors and will be shipped East for interment as soon as arrangements can be made.

When the deceased was first stricken the gravity of his illness was at once recognized, but it was hoped that his strong constitution would enable him to recover. At one time he appeared to be improving but took a relapse and sank rapidly to his end.—Bakersfield Californian, Sept. 21st.

### The Caribou to Prosecute Development Work.

The Caribou Oil company has recently effected a sale of thirty acres of its holdings in section 22, 19-15, Coalinga district, for the sum of \$20,000 cash, and the company will at once proceed to expend this entire sum in improvements and development work. H. H. Hart, the principal owner of the stock of the company, has gone to Coalinga to direct operations.

The Caribou still owns 100 acres in section 22, every foot of which is considered splendid oil land. Its wells were the first sunk in that part of the field and were stopped in the first sand, and even that sand was not penetrated to the bottom. Other adjoining companies, notably the California Oilfields Limited, have developed lower and richer sands and brought in some of the best wells in the State, the gravity of the oil being such that it commands a much higher price than fuel oil. The present wells of the company will be cleaned out and deepened and new wells sunk that will probably equal the big wells of the English company adjoining.

In operation and shut in there are about nine hundred productive oil wells in Kansas and Indian Territory.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Sept. 22, 1903.

Penn.-Coalinga Petroleum Co. is building rig No. 3.

The Pacific Coast Oil company has finished a water well at its plant on section 6.

The Mercantile Crude Oil company spudded in on its No. 3 well on the 19th inst.

A new company, whose name cannot be ascertained, has been organized, and will drill on section 25, 20-15 in the near future.

Two rigs have been erected on the Nathan lease on section 7 and No. 1 well was spudded in last week and No. 2 is ready for spudding in at this writing.

The Philadelphia-San Francisco Oil Co. on section 36, finished its No. 3 well at the same depth that its former wells were finished. The indications show up very favorably for that section of the field.

The Union Oil company has struck oil in its No. 1 well on section 13, at about 900 feet, and the well will be finished up within another week. It is building two more rigs on this section and will lose no time in thoroughly developing this lease.

The Esperanza Oil company is drilling a water well on its lease on section 6. Number 3 well of this company was so badly sanded up that it is now being cleaned out, after which process it is expected that it will flow as freely as its neighbor wells Nos. 1 and 2.

Mr. H. S. Davis, who has been foreman of the Pacific Coast Oil company in this field since the advent of the company last January, has resigned his position to take effect on the 20th inst. Mr. Davis will remain in the Coalinga field. Mr. L. L. Anderson succeeds him.

McClurg & Claypool spudded in on their No. 4 well near the Maine State Co.'s line. Ever since these gentlemen began operations on the present lease they have kept right at work putting down wells immediately after one is completed, and thus far have met with no reverses, bringing all wells in successfully.

The contract for the six new wells of the Commercial Petroleum company has been awarded to J. W. Livermore, who finished No. 2 of this company. Two strings of tools will be operated at the same time. One rig is ready to spud in and work on the other is pushed with the utmost energy.

The enormous production of the Section Seven Oil company's well necessitated the laying of a separate six-inch line connecting it with the P. C. O. tank on section 6. Thus far the production of the well has kept on increasing, and on a number of days more than 2,500 barrels were produced in twenty-four hours. Grading for two 1,200-barrel tanks is completed and as soon as they are erected No. 2 well will be perforated.

Reports have been current that the M. K. & T. struck oil of a light gravity at 2300 feet. This company is on section 8, and if the report is with foundation it will open up miles of new territory. The company is located just one mile from the famous Section Seven well, and a little over a mile from the Esperanza. This company is worthy of the success it has attained for its untiring and undefatigable efforts for more than one year. We hope

the report is true and that a gusher of the greatest magnitude will crown its effort.

There have been numerous land transfers made in this field within the past two or three weeks. Many of these transfers cannot be learned. Many new leases have been contracted, and new companies are beginning work. The present rush into this field is unprecedented. The value of land has doubled and trebled since last May, and in a few instances the price of land has jumped from a few hundred dollars to several thousand per acre. The railroad company has withdrawn entirely from the land market, and of the land that it has already leased it is more stringent in the execution of the stipulations and conditions.

S.

### The Wyoming Field.

EVANSTON, WYOMING, SEPT. 18, '03.

The Inter-Ocean company will start drilling on section 4 about the first of October.

The Hawthorne company's drilling machinery is on its way from Los Angeles, and the company will commence to erect its derrick and buildings next week. They are to locate just north of Almy.

The Standard Reserve Oil company has completed its first rig on section 12, 15-118, and will be drilling within a few days. Mr. C. O. Richardson, manager of the company, who had the misfortune to accidentally wound himself with a revolver shot some time ago, is rapidly recovering, and expects to resume personal management of his company in a few days.

The American Consolidated company are erecting derricks as rapidly as they can get the lumber on the ground. They intend to complete seven wells on section 23 before the first of December, which is the time given them by the government to prove its worth as oil territory. This is one of the sections given the Union Pacific Ry. Co. in the congressional land grant. The company have established a large camp near the northwest corner of the section to accommodate their large force of men. It is understood they will push development work the entire winter, as they have an inexhaustible water supply to which they will lay pipe lines, burying them below the frost line.

The most notable feature in the Uinta oil field the past week was the completion of No. 1 well on section 10, 14-118, by the Atlantic & Pacific Oil company. This well was drilled 1800 feet deep and five good sands were passed through, the first being 45 feet in thickness. The company will make no statement as to what the well will do beyond acknowledging that the result is sufficiently satisfactory to warrant putting down several more wells on the same section. Other companies will commence operations on adjoining land this fall, and from the present outlook the Aspen country will have as good producers as the Spring Valley field.

Two extended fishing jobs are in progress on the Atlantic & Pacific lease at Spring Valley. A bit was lost in No. 3 well on section 22 about a month ago and another in No. 1 well, section 26, about three weeks ago, the latter being just at the top of the oil sand. Last Monday the bit was removed from the hole and drilling resumed for about an hour, when the second bit was lost, and up to this time has not been removed. No. 4 well, on section 22, is now down about 600 feet, and another ten days should bring in another well there. This company are setting up their 1,000-barrel tanks

as rapidly as possible and three of them have already been filled. Mr. R. V. Ellis, the president of the company, is on the ground watching closely the progress made. We understand it is his intention to remain in the field for several months, having closed up all pressing business in California that he might devote all his time to this field, where he intends to push development as rapidly as possible.

E. S. E.

### Southern California Fields.

BREA CANYON.

The Union Oil company are running two strings of tools, have just lately brought in a small producer, having been over a year on the hole. The Brea Canyon Oil company are running two strings of tools and expect to finish one new well this week, which has the showing for a fine well.

CASMALIA.

The Southern Pacific have the tools stuck in their well near here. The Casmalia Ranch Oil and Development company have shut down indefinitely. The Graciosa Oil company's well, commonly called the Harkness well, looks as though it was going to be the best producer in the field. There are rumors of an oil well supply house in Santa Maria, who or where it is coming from no one knows. Some talk of R. H. Herron and others of the Union Oil Well Supply.

FULLERTON.

The Santa Fe have just brought in a fine producer on the western side of the field next to the Fullerton Consolidated line. They are running five strings of tools and within the next ten days will be running six. On their No. 14, an old well, they are meeting with considerable trouble at a little over 1,400 feet. It seems next to impossible to get beyond a certain spot in the hole. All usual experiments have been tried but as yet have not been successful. The Fullerton Consolidated Oil company are running four strings of tools, two on old wells and two on new ones. A good well is expected in their No. 14 the latter part of this week just opposite the Santa Fe. Columbia Oil company are running three strings of tools, two on their lease from the Union and one on their old lease. The Olida Crude have resumed operations and running two strings of tools. On one of the wells are having more than their share of trouble with casing. The Rob Roy are shut down awaiting a new cable which is expected every day. Graham & Loftus are running two strings of tools and soon expect to start a third. Fullerton Oil company are running one string of tools. Allan Craig is doing the contracting for them.

LOS ANGELES.

There are eight strings of tools running in the city; all but two are deepening old holes. In the Salt Lake field about six miles west of the city they have taken on new life and four strings of tools are running.

NEWHALL.

This district is very quiet as only three companies are drilling—the Pearl, the St. Bernard and the Pacific Coast Oil. The latter are going to try and reach a depth of 3,000 feet or over, for a test. At present they are 900 feet with 13-inch casing, which makes it very probable to reach the desired depth.

NORDHOFF.

There is one well drilling in this district in Lemon canyon.

PIRU.

Modelo Oil company have just brought in their No. 28 well and it is showing up as one



of their best. Are starting another well and will be drilling within the week. The Piru Oil and Land company are drilling a test well about twelve miles from town which is near the old gold mines. On Tory hill the Union are down 700 feet on No. 59. The following companies have resumed operations: The Tapo Oil company in Hopper canyon, the St. Louis in Torus canyon and the Eureka.

SAN SANITA CANYON.

The Union Oil company are running one string of tools here. They have lately acquired leases on a considerable amount of territory on account of showing from last well.

SANTA MARIA.

Plans are being made to supply all the local companies.

The Hall well is down 300 feet in No. 1. Have had to put in casing on account of bad casing.

The Herron company, near the Hall, are getting their derrick and machinery in place and expect within twenty days to be drilling.

The Santa Maria Oil and Gas company are down 1,600 feet with their well just west of the Pinal, with eight-inch casing. Everything looks favorable for a good well.

In Santa Maria the hotels and restaurants are working over time on account of the steady stream of oil men that are coming to their little city. With their getting oil it is to be hoped they will do something for their bad roads.

The Western Union are running two crews of drillers on clearing out well, having had to stop drilling to get the pumping wells in shape. They expect in the near future to start two more strings of tools so as to leave two cleaning out and two drilling new wells.

The Union Oil company are surveying for a pipe-line from the fields to tide-water and are planning to have their line tap all the producing belt. The Loma Oil company, one of their companies, has rig up for No. 3. No. 1 will be pumped for a while and later on drilled deeper.

Graciosa Oil company are waiting for tubing for No. 1. Conservative judges place this well at 100 barrels of high gravity oil per day. They have over fifty feet of fine pay oil sand. While waiting for tubing they are grading roads and foundation for derrick for their No. 2 which will be in the northeast corner, next to the Western Union property.

The Pinal Oil company are down about 1,200 feet on their No. 4. On No. 1 they have had to pull their casing on account of a loose joint in the bottom. They were successful and now have casing in again. They expect within the next two weeks to be drilling on No. 5. They are experiencing great trouble for lack of oil cars. The Brookside Oil company, an allied company of the Pinal, are building their No. 2 derrick over near the Santa Maria Oil and Gas company property. Their No. 1 well struck a large flow of good

water at less than 400 feet. They were unable to lower the water an inch and, as water costs from \$150 to \$200 per month this is considered a good thing.

SANTA PAULA.

The Slocum Oil company have again resumed drilling having been shut down for months on account of low price of oil. The Standard have been making some contracts at good prices for the producer and new life is expected in the field. The Live Oak have just put their new well to pumping and have a good showing for a heavy oil producer. The Priscilla have again started drilling after over a year's shut down. On the Balcom farm the Gillmore well is still drilling and are now using 4 1/4 casing.

WHITTIER.

The Murphy Oil company are running three strings of tools next to the Central property and one in the Cayote hills. This latter is new territory and lays about four miles south of the proven territory.

The Central Oil company are running three strings of tools and have about drilled up all their line next to the Murphy and are starting drilling inside. The Warner Oil company have again resumed drilling after a long shut-down in the drilling.

WALKING BEAM.

Personal Mention.

Wm. C. Hodge, Jr., of the U. S. Geological Survey, is in the city this week.

John Hinkle, of the stock and oil exchange, is seriously ill at his home in Berkeley.

Hon. C. A. Barlow and wife, who have been spending several weeks in this city, have returned to their home in Bakersfield.

J. A. Kerr, superintendent of the Apollo and Four Oil companies at Kern River, has returned from his vacation in San Francisco.

Henry J. Crocker, who is actively identified with the oil industry on the Coast, has been nominated for mayor of San Francisco by the Republicans.

W. E. Leroy, manager of the McFie Oil-well Supply company, Bakersfield, will leave in a few days for the hot springs for the benefit of his health.

J. L. Bryner, who is associated with Robert Hays Smith in the Coalinga field, has been very sick at the Artesia hotel in Hanford for several days, threatened with typhoid fever, but is reported convalescing.

Mrs. C. F. Williams, while driving from Bakersfield to her home in the Kern River fields last Monday, met with a peculiar accident. When about three miles from home she had to pass under a three-inch pipe that crossed over the roadway. Just as the front of the buggy was passing under the pipe it fell and struck the rig near the dashboard. Mrs. Williams was compelled to remain in this position till some one happened along and released her. She was not injured but the buggy was badly broken.

Notes From the McKittrick Field.

Mr. W. D. Roberts, superintendent of the Dabney Oil company, at McKittrick, was in the city the past week and furnished us the following items of news concerning the operations of his company: A new water well was completed recently which furnishes all the water needed, independent of the water company. New No. 2 well promises to be even better than at first indicated (240 barrels a day). Started spudding in on a new well last Thursday and struck the oil sand Saturday at 130 feet. Will have 430 feet of oil sand in this well. Old No. 14 has been cleaned out and put on pump and is producing 100 barrels a day. This well was considered good for only about 60 barrels, but had never been worked by the old company. The work of improving the old wells is progressing as fast as possible, while two drilling crews are kept busy all the time on new wells.

The S. P. Pipe Line.

The Southern Pacific Railroad company erected two 55,000-barrel oil tanks at Ora station, in the Coalinga field, several months ago, and is now getting ready to connect these with the wells on the west side by means of an eight-inch pipe line. The pipe is at Coalinga and Superintendent Burkhalter was in the field a few days ago looking over the proposed route and also looking for a site for a 500,000-barrel reservoir which the company will build somewhere on section seven. The development of the great Section Seven gusher has led the railroad company to decide upon the mammoth reservoir. As soon as the facilities are adequate for handling the oil the number two well of the Section Seven company will be perforated and turned loose. One day last week 1,200 barrels of oil ran to waste from the number one well because there were not adequate facilities for handling such an immense production as that well is yielding. On that date the well was estimated to have spouted 3,000 barrels of oil. This statement is made to us by Robert Hays Smith, the manager of the company.

Interest in the Carisa Field Increases.

Interest in the Carisa oil district in the eastern part of San Luis Obispo county, west of the McKittrick field increases as development proceeds. Three drilling rigs are now on the ground and have been put there by people who are determined that the district shall be thoroughly prospected.

Wagon roads have been built, one through the Temblor hills from McKittrick to the Carisa district, and there is now no difficulty in bringing in supplies.

There is great activity on the Congdon property, where an abundant supply of water has recently been developed, and work on the oil well being drilled there is steadily proceeding.

H. H. Bardin, manager of the Los Chimneas ranch, situated a few miles southwest of the Congdon well, has discovered oil shale with flattering indications. Four wells are to be drilled in the near future. Shale of the same character has been found on property adjoining.—Californian.

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## Flash Points of Mixed Oils

By Paul W. Prutzman.

The statement has often been made that a mixture of two oils, one of high and the other of low flash, will have a flash point about equal to that of the lower member, no matter in what proportions they may be mixed. It has also been stated that when a mixture of light and heavy oils is allowed to stand undisturbed, separation will often take place, the top layer acquiring a considerable higher gravity and lower flash point than were shown by the original mixture. Certain observations having led me to some little doubt on both these points, I had occasion to make the following experiments, the objects being to determine; first, whether the gravity of a mixture of two oils is equal to the gravity calculated from the proportions mixed; second, what changes in gravity would occur on allowing the mixture to stand, and then testing the top layer; third, whether the fall in flash point with increasing proportion of the light oil bears any numerical relation to the percentage composition, and the initial difference in flash between the two oils; and finally, what alteration would take place in the flash point on standing quietly.

Five crude oils and two samples of distillate were tested for gravity and flash point and mixtures of these made (by twos) running from 90 per cent heavy and 10 per cent light to 10 per cent heavy and 90 light. The gravity and flash point of each of these mixtures was taken, and all the sample then allowed to stand quietly for thirty days. To approach as far as possible the conditions found in a closed iron tank, the samples were put away in tin cans, filled to within one inch of the top, and capped in such manner as to prevent circulation of air, but allow any gas pressure to escape. After thirty days the samples were opened, the top layer (about one-eighth of the whole) carefully poured off so as to disturb the sample as little as possible, and the gravity and flash of these top samples taken. The results are tabulated below.

### 1458. CRUDE OIL AND DISTILLATE. Crude, Kern River—Gravity 14.8°—Flash 257° F. Distillate—Gravity 29.9°—Flash 78° F.

MIXTURE		WHEN FRESH			AFTER STANDING			
CRUDE	DISTILLATE	GRAVITY CALCULATED	GRAVITY FOUND	FLASH	GRAVITY FOUND	FLASH	FALL IN FLASH	FALL IN FLASH
100%	0%		14.8°	257°	14.8°	0.0°	257°	0
90%	10%	16.3°	16.1°	244°	15.8°	0.3°	200°	44°
80%	20%	17.8°	17.2°	210°	16.6°	0.6°	178°	32°
70%	30%	19.3°	19.1°	178°	18.5°	0.6°	150°	28°
60%	40%	20.8°	20.6°	148°	20.3°	0.3°	126°	22°
50%	50%	22.4°	21.7°	126°	21.2°	0.5°	106°	18°
40%	60%	23.8°	23.3°	106°	23.0°	0.3°	98°	8°
30%	70%	25.4°	24.4°	97°	24.8°		92°	5°
20%	80%	26.8°	26.0°	90°	26.0°	0.0°	84°	6°
10%	90%	28.4°	27.8°	84°	27.3°	0.5°	78°	6°
0%	100%		29.9°	78°	29.9°	0.0°	78°	0°

### 1459. HEAVY AND LIGHT CRUDE.

Heavy Crude, Kern River—Gravity 17.0°—Flash 200° F.  
Light Crude, Coalinga—Gravity 22.1°—Flash 140° F.

MIXTURE		WHEN FRESH			AFTER STANDING			
HEAVY	LIGHT	GRAVITY CALCULATED	GRAVITY FOUND	FLASH	GRAVITY FOUND	CHANGE IN GRAVITY	FLASH	FALL IN FLASH
100%	0%		17.0°	200°	17.0°	0.0°	200°	0°
90%	10%	17.5°	17.7°	180°	17.9°	0.4°	168°	12°
80%	20%	18.0°	18.1°	170°	18.3°	0.2°	163°	13°
70%	30%	18.5°	18.5°	170°	18.8°	0.3°	160°	10°
60%	40%	19.0°	18.9°	164°	19.4°	0.5°	157°	7°
50%	50%	19.5°	19.3°	156°	19.9°	0.6°	154°	2°
40%	60%	20.1°	19.7°	150°	20.3°	0.6°	150°	0°
30%	70%	20.6°	20.1°	145°	20.7°	0.6°	146°	R 1°
20%	80%	21.1°	20.7°	143°	21.2°	0.5°	142°	1°
10%	90%	21.6°	21.3°	139°	21.5°	0.2°	140°	R 1°
0%	100%		22.1°	140°	22.1°	0.0°	140°	0°

### 1460. HEAVY AND LIGHT CRUDE.

Heavy Crude, Kern River—Gravity 14.8°—Flash 256° F.  
Light Crude, Coalinga—Gravity 22.2°—Flash 134° F.

MIXTURE		WHEN FRESH			AFTER STANDING			
HEAVY	LIGHT	GRAVITY CALCULATED	GRAVITY FOUND	FLASH	GRAVITY FOUND	CHANGE IN GRAVITY	FLASH	FALL IN FLASH
100%	0%		14.8°	256°	14.8°	0.0°	256°	0°
90%	10%	15.5°	16.2°	236°	15.6°	F 0.6°	214°	22°
80%	20%	16.3°	16.5°	218°	16.5°	0.0°	204°	14°
70%	30%	17.0°	17.1°	206°	17.2°	R 0.1°	190°	16°
60%	40%	17.7°	17.9°	192°	18.2°	R 0.3°	172°	20°
50%	50%	18.5°	18.7°	176°	18.8°	R 0.1°	160°	16°
40%	60%	19.2°	19.1°	164°	19.5°	R 0.4°	147°	17°
30%	70%	19.9°	19.8°	150°	20.3°	R 0.7°	142°	8°
20%	80%	20.6°	20.4°	138°	21.0°	R 0.6°	140°	R 2°
10%	90%	21.4°	21.0°	135°	21.6°	R 0.6°	137°	R 2°
0%	100%		22.2°	134°	22.2°	0.0°	134°	0°

### 1461. LIGHT CRUDE AND DISTILLATE.

Crude, Coalinga—Gravity 21.1°—Flash 140° F.  
Distillate—Gravity 29.3°—Flash 74° F.

MIXTURE		WHEN FRESH			AFTER STANDING			
CRUDE	DISTILLATE	GRAVITY CALCULATED	GRAVITY FOUND	FLASH	GRAVITY FOUND	CHANGE IN GRAVITY	FLASH	FALL IN FLASH
100%	0%		21.1°	140°	21.1°	0.0°	140°	0°
90%	10%	21.9°	22.5°	132°	22.6°	0.1°	122°	10°
80%	20%	22.7°	23.1°	124°	23.4°	0.3°	112°	12°
70%	30%	23.6°	23.9°	112°	24.1°	0.2°	102°	10°
60%	40%	24.4°	24.1°	101°	24.8°	0.2°	96°	5°
50%	50%	25.2°	25.4°	94°	25.6°	0.2°	84°	5°
40%	60%	26.0°	26.2°	85°	26.5°	0.3°	85°	0°
30%	70%	26.8°	27.0°	81°	27.3°	0.3°	81°	0°
20%	80%	27.7°	27.7°	78°	28.0°	0.3°	78°	0°
10%	90%	28.5°	28.4°	77°	28.7°	0.3°	76°	1°
0%	100%		29.3°	74°	29.3°	0.0°	74°	0°

First, as to calculated gravities as against gravities actually shown by the mixtures. If the calculation is made by multiplying the Beaume degree for each oil by the percentages used, and dividing the sum by 100, and actual gravity found compares with the gravity thus calculated as follows:—

No. 1—maximum below 1.0°, minimum below 0.2°, average 0.5° below  
No. 2— " " 0.6°, maximum above 0.2°, " 0.2° "  
No. 3— " " 0.4°, " " 0.7°, " 0.05° above  
No. 4— " " 0.1°, " " 0.5°, " 0.1° below

In other words, out of the thirty-six samples, the maximum variation of the actual reading from the calculated gravity was only 1.0°, while the average variation was but 0.45°. I think it safe to say that the gravity calculated from the gravities and proportions of a

mixture of oils will agree with the actual gravity of the mixtures within ordinary limits of accuracy in hydrometer reading. Of course if the readings and calculations were made in real specific gravities instead of Beaume degrees the correspondence would be closer than shown above.

Second, as to alteration of gravity on standing thirty days, the top layer of the settled mixture being tested. The averages are as follows:

No. 1—maximum fall 0.6°, maximum rise 0.4°, average 0.3° fall  
No. 2— " rise 0.6°, minimum " 0.2°, " 0.3° rise  
No. 3— " fall 0.6°, maximum " 0.7°, " 0.2° "  
No. 4— " rise 0.3°, minimum " 0.1°, " 0.2° "

Out of the thirty-six samples the gravity of nine dropped a maximum of 0.6°, twenty-five rose a maximum of 0.7°, two did not change, the average change of all being a rise of 0.1°. I would draw the conclusion that on allowing a mixture of oils to stand the gravity of the top layer would change somewhat, but seldom over 1° and generally much less. This change might be a rise or a fall, according to conditions which I am unable to determine, but would probably generally be a slight rise.

I would call attention to the fact that this change of gravity is very far from sufficient to bear out the popular idea of separation of mixed oils into layers when standing in a tank. In the case of the mixtures on table 1, the components of which differed over 15° in gravity, the top layer actually became heavier by an average of 0.3°, while the greatest average rise of gravity was in the case where the components carried only 5° from each other. It is probable that the tendency to separate depends more on the chemical composition of the oils than their relative gravities.

Third, as to the flash points of the mixtures when fresh. My hopes of finding a definite numerical relation between the percentage composition, the flash points of the original oils, and the flash point of the mixture, were disappointed. I believe there is such a relation, but it would require more experiment to find it. But some general relation may be readily pointed out. The following table shows the fall in flash with increasing percentage of the lighter oils. The column marked "flash" is the observed flash point of the mixture, while the column marked "drop" shows the difference between this point and the flash point of the heavier mixture next above.

Number	1	2	3	4
Difference	179°	60°	122°	66°
Flash Drop	Flash Drop	Flash Drop	Flash Drop	Flash Drop
100% Heavy	257°	200°	256°	140°
90H—10L	244°	13°	180°	20°
80H—20L	210°	34°	176°	4°
70H—30L	178°	32°	170°	6°
60H—40L	148°	30°	164°	6°
50H—50L	126°	22°	156°	4°
40H—60L	106°	20°	150°	6°
30H—70L	97°	9°	145°	5°
20H—80L	90°	7°	143°	2°
10H—90L	84°	6°	139°	4°
100% Light	78°	6°	140°	1°

It will be noted that when the mixture reaches 70 per cent of the heavier oils to 30 per cent of the lighter, in all four cases the flash point had fallen one-half (about) of the entire difference: that in three cases the mixture of 50 per cent and 50 per cent had dropped three-fourths of the difference, though in one case this amount of drop was not reached until the proportion of the light oil reached 60 per cent; and that in all four cases the mixture of 30 per cent heavy and 70 per cent light had a flash point only one-tenth of the entire difference higher than the flash of the light oil. In other words, so far as this



small number of experiments can prove, the rule would be:

That in a mixture of two oils of different flash points, a mixture of three parts of the light to one part of the heavy would have a flash point equal to the flash of the lower oil plus one-tenth of the difference between the flash points of the original oils.

That a mixture of equal parts would have a flash equal to that of the lighter oil plus one-fourth of the difference.

That a mixture of three parts of the heavy and one part of the light would have a flash point about midway between the flash points of the original oils.

Finally, as to drop in flash point on standing. The first line, "maximum drop," in the table below shows the greatest fall on any one sample in a set, the second line shows the above figure, divided by the difference between the original flash points of the oils, the third line "average drop," shows the average fall of the nine samples of each set, and the fourth line shows this figure divided by the difference, as above.

Number	1	2	3	4
Original Difference	179°	60°	122°	65°
Maximum Drop	44°	13°	22°	12°
Factor	0.25	0.22	0.18	0.18
Average Drop	18.8°	4.0°	12.6°	4.8°
Factor	0.105	0.081	0.103	0.072

There is some correspondence among these figures, and it may be that the fall in flash point follows some simple law, but I am inclined to think that the chemical nature of the oils, that is, their degree of solubility in each other, has some bearing on their separation on standing. The fall in flash point, both maximum and average, seems to be in a general way a factor of the original difference, that is, both the maximum and the average fall, divided by the original difference, gives roughly the same figure for each of the four oils. The drop is greatest in mixtures containing very little of the light oil, and as we approach the other end, that is, to mixtures consisting largely of the light oil, the fall on standing becomes very small. In no case do any of the mixtures go below the flash of the lighter oil.

The decrease in flash point on standing is not so important as might appear on first sight. If the mixture flashes at from 200° to 250° Fahrenheit, and we set the danger line at 150°, a fall of 44°, which is the greatest noted, would not carry it below this danger line, while as the original flash point of the mixture approaches 150° the fall in flash point becomes very slight. Out of the thirty-six samples, fourteen originally flashed above 150°, and of these fourteen, only one fell below 150°, one other falling just to this figure. It is hardly likely that any mixed oil on which a reasonable margin of safety, say 30°, had been allowed, would fall below the danger line in any reasonable, though if less margin than this were allowed in mixing it might do so.

The gravity readings above are by hydrometer, and corrected for temperature. The flash points are by open electric cup, and made under the same barometric pressure throughout. Most of the flash points were duplicated, some of them several times, and I consider them reliable to 1° Fahrenheit.

After standing thirty days, these samples were strained through a fifty mesh screen, and the bottoms of the containers observed. In no case was any precipitation observed, either on the screen or on the bottom of the container. The original oils were free from sediment.

The PACIFIC OIL REPORTER \$2.50 per year.

## The "Derrick" Editor's Views of the California Oil Industry.

Patrick C. Boyle, editor of the Oil City (Pennsylvania) Derrick, the oldest oil newspaper in the United States, was a recent visitor to the Grand Army Encampment in this city. Mr. Boyle is probably the best posted oil man in this country and his views and opinions are always accorded great weight in oil circles. Speaking to a Chronicle reporter of the California oil industry he said:

"California to-day is the greatest oil field on earth. Its output at present, including by-products, is equal to that of Pennsylvania and West Virginia combined, and with the supply now in sight will soon be producing as much as all the rest of the United States.

"It will prove in time to be a greater source of wealth to the state than her gold mines, and as an economic factor will exceed in value all her other natural products. It places California on the same fuel basis as Pennsylvania as regards manufacturers and supplies the foundation stone for untold wealth in the future."

## Jumping in the Carisa.

It is reported that several claims have been jumped in the Carisa district lately. No particulars are obtainable but it is said that some properties have been located several times over by different parties and considerable litigation may result from conflicting claims unless a settlement is arrived at.

Interest in the Carisa and Cuyama districts is growing and many efforts may be made to obtain lands there and all who already own any properties will make all efforts to keep what they have.

The jumping of claims has been a source of much trouble in the past in the different fields whenever the lands have become of much value and has proved a source of constant litigation. If present reports be true the new fields are not likely to be exceptions to the rule.—Californian.

When writing to advertisers always mention the PACIFIC OIL REPORTER.

## Dustless Road Company Is Out of Court.

Los Angeles county or any other district has the right to apply oil to highways without fear of legal interference by corporations claiming to have patents upon the process.

Judge Wellborn of the United States district court has handed down a decision in the case of the California Dustless Road company against the county of Los Angeles, in which the plaintiff sued for alleged infringement of the Mattern Oil Road patent. The court decides in favor of the county. The plaintiff not only claimed the county had no right to apply oil to the highways, but asked for compensation in the form of royalty for oiling done throughout the county in the past. The district attorney secured the services of Charles S. Rogers, an expert patent attorney, who formerly was employed by San Bernardino county. Mr. Rogers' familiarity with such matters enabled him to readily prove the fallacy of the road company's claims. The victory is an important one, as a decision against the county would have meant that the plaintiff would have a monopoly of applying oil to roads.

Many similar suits have been filed by the plaintiff corporation against other counties, but it is expected the cases will not be tried unless a reversal of Judge Wellborn's decision can be secured in the higher courts.

Riverside city and county is interested in this decision, as notice has been served upon them by the Dustless Road company warning them against the use of oil on roads, as the company claimed a patent on the idea.

## Union Sugar Company Buys Pinal Oil.

The Pinal Oil company is now a direct competitor with the Western Union company and since completing the pipe-line has begun supplying the Union Sugar company, the water works, the flour mills and the steam laundry with fuel oil. No large shipments have been made to Port Harford yet, but negotiations are now pending with the Standard, which, if completed, will take the bulk of the present output.—Santa Maria Times.



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HANFORD



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### Coalinga.

The M. K. & T. are putting in 4½-inch casing.

The Blue Diamond are down 850 feet with good prospects.

The Wabash Oil company are preparing to put down well No. 2.

R. C. Baker on the Adams lease will perforate this week and expects a flowing well.

Roberts Oil company on section 1, 20-14, are down 550 feet and making good progress.

The famous Section Seven No. 1 is flowing 2,000 barrels a day this week. A crew of men are kept working night and day making reservoirs and building dykes to hold the oil, but in spite of this the oil is running over the plains for over half a mile.

### Colusa.

A third oil sand is said to have been struck in the Williams oil well.

The Chehalis Oil company claims to have a showing of oil in its hole, but the writer, Vice-president Buck, didn't know how much.

The lease of the Minor Oil company,

two deep wells in hopes of striking a big body of oil.

### Kern.

A new telephone line is soon to be constructed from Bakersfield to McKittrick in the interest of the oil fields. It is to be controlled by the Associated Oil company.

The McKittrick is now having good success with its No. 3 well, which at first gave considerable trouble on account of the nature of the sand encountered. It is now believed, however that it will prove an excellent producer.

Charles S. Vezie, accused of stealing an engine, casing and some belting from the Valley View Oil company's lease in the Kern River field and hauling it to Sunset and putting it on the Sedalia-California Oil company's property, was acquitted on the ground that he was acting under instructions from his superintendent, W. P. Cunningham.

C. A. Baldwin of the Pacific Tank company reports business good in his line, having sold six tanks lately, four in Coalinga and two in the Kern River oil fields. Mr. Baldwin has esta-

blished an exhibition pumping plant at his place of business, using a gasoline engine. He thinks these engines can be successfully used in pumping oil, also water for irrigating purposes.

The Teck Oil company, a newly organized California corporation, with headquarters in San Francisco, has filed its articles of incorporation. The directors and incorporators are as follows: Henry Rosenfeld, William Walker, Ira S. Lillich and Louis Rosenfeld, all of San Francisco, and Addison H. McKay of Santa Barbara. The capital stock of the corporation is \$250,000, par value of shares \$1 each. Each of the incorporators is credited with the ownership of ten shares.

Work is expected to begin at once on the construction of the extension of the Santa Fe Sunset line. The surveys were all completed some time since and the commencement of active work is now waiting upon the arrangements of some details at Los Angeles and the arrival here of material needed. It is thought that it is only a question of two or three weeks at the utmost before the work will be actively in progress and as the distance is only a little over two miles it will not take long to complete it.

The number of new companies entering the Kern county fields within the last month indicates that there will be a large amount of development work in the near future, says the Californian. Those companies are the Lackawanna, a local company operating on 31, 28-28, the

others who have done little or nothing to commence more active work. Mr. Campbell says the drilling is proving more easy in the part where the Dayton is located than in some parts of the field, as the sands are favorable.

### Kings County.

A rancher came to the Sentinel office to-day and urged the paper to advocate strenuously the proposition of continual oiling of the roads. He particularly urged the oiling of the main thoroughfares leading into town. The road that runs along the western boundary of Hanford is traveled perhaps more than any other road that comes to the city, and the dust is fearful. The rancher says "put on more grease."—Hanford Sentinel.

There were nine placer claim location notices filed in the county recorder's office on the 19th by the Oil Spring company No. 12, which locations cover the larger portion of sections 14, 22 and 24, township 23 south, range 17 east. The recording was done at the request of F. V. Dewey and besides he, there are M. L. Woy, M. Madsen, J. W. Livermore, D. M. Coledge, M. E. Woy, Anna Madsen, Emma Livermore, George B. Graham and W. D. Nelson.—Hanford Sentinel.

### Lompoc.

The Crocker company well at the grade is reported down 1,500 feet and encountering a stratum of liquid asphalt.

The Lompoc well is nearing the 2,600 foot mark and is reported in a formation

most favorable for oil and with a good appearance of gas.

The Union Oil company is down 1,500 feet with well No. 3 and has passed through several oil seepages, but at present is bothered with forcing the casing. There seems no doubt but that oil will be secured on reaching the level of No. 1.

### Mendocino.

W. Youle, the oil contractor, filed an attachment suit Monday on the well, leases and other property of the Ukiah Oil and Development company for \$1,674.81. Mr. Youle has performed over \$3,000 worth of work for the company and put the well down over 700 feet. This company under its original management is reported to have sold over \$12,000 worth of stock and the first well was put down only about 200 feet. The company was reorganized a few months ago and again commenced drilling with the above result. Mr. Youle states that if he gets possession of the property he will endeavor to interest capital enough to put the well down at least 1,500 feet.—Ukiah Press.

### Oregon.

Having occasion to be in the vicinity of the oil well the other day, we hunted up Mr. Button, who showed us over the plant. We were much pleased to find the work going along with every prospect of success. They have a first-class plant, the best that money could procure, and under Mr. Button's supervision, the



Coalinga, Fresno County, Where an Immense Oil Boom is Centering.

in Bear Valley, Colusa county, has been absorbed by the Bear Creek Oil company, with headquarters at Corning. This company starts in under unusually favorable conditions, as they come into possession of a hole that has been drilled 900 feet. It is reported to be in oil sand, but this will have to be verified. Funds have been subscribed and drilling has been resumed. This company should not be confounded with the Bear Valley Oil company, which was located on the Pakeland and from which Youle recently pulled the casing because the company could not pay him. There were good indications when the hole was abandoned.—Arbuckle Independent.

### Fullerton.

The Olinda Land company has resumed drilling for oil on the Olinda ranch.

Union and Brea Canyon oil companies are erecting a school-house 22x30 feet, in the canyon, as a temporary school building for this term.

### Half Moon Bay.

The Pilarcitos has resumed work again after a short delay, and are awaiting further developments.

The Half Moon Bay oil district has very encouraging prospects and our operators are drilling away with an assurance of success. A few of the companies have commenced putting down a number of shallow wells, as a much better result can be obtained, and with much less expense, than to drill one or

blished an exhibition pumping plant at his place of business, using a gasoline engine. He thinks these engines can be successfully used in pumping oil, also water for irrigating purposes.

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"bits" are not allowed to remain idle very long at one time. This work should receive the support and encouragement of every person in the district. Should it prove a success, and everything points that way at present, it would prove the biggest thing that has ever been taken hold of in this section.—Bandon Recorder.

### San Benito.

The supervisors of San Benito county are experimenting with crude oil for a dressing on the roads of the county. So far the experiments have been very successful and it is likely the oil will be very generally used on the roads of that county in a short time.

### Utah.

According to the Price Advocate the Burns folks, who were drilling for oil three miles west of Desert Switch, have ceased operations after encountering a flow of good water, estimated to be 17,000 gallons every twenty-four hours. This find in itself is a most valuable one, but water was not what the prospectors were after.

The oil excitement of the past two years which has called for so much location of ground across the desert in this county has not died out but has settled down to a practical basis, and not much noise about it. At present a well is being driven on the Ballard ground, near Cisco, and the well is down now several hundred feet. Just north of Cisco another outfit is being got into



place, and it is certain that a practical test of the oil question in this country is being made.—Moab Times.

Everything now points to an early development of the lands on Promontory Point on the shores of Salt Lake, which show such a remarkable seepage of oil. Chicago capital is now being interested and it is only a question of a few months when active operations will commence. For years this property has been known to the old settlers of that part of Utah as offering many inducements to investors, but until recently has it been properly put before them. W. A. Hersey, who was one of the first to develop the large wells in the Kern River district, has large holdings in this new field and has already interested parties in investigating these wonderful surface indications. It is the opinion of many geologists and experts in oil territory that at this point of the Great Salt Lake there exists an immense deposit of asphaltic oil.

#### Ventura.

The oil steamer Whittier sailed from Honolulu on the 14th with the Fullerton and Santa Paula in tow, direct for Ventura. The three big vessels will load oil here for San Francisco. F. R. Hennion, of the Union Oil company, expects the big boats to arrive here about the 28th of the month.

The big tank steamer, Asuncion, was at the wharf all day Sunday excepting when the low tide made it necessary for the vessel to put out into the channel. She is the largest boat that ties up to the Ventura wharf. The Asuncion took 13,886 barrels of oil and steamed north.

#### The Stock Market.

The past week has been characterized by dullness. The habitual oil stock speculator seems to be at sea: Home Oil has begun to take on life again. The price advanced 10 cents during the week and 2300 shares changed hands. Hanford is active, the totals for the week for that stock heading the list. Holders are asking \$140 and every indication points to an advance. Reed Crude is on the up grade again, 4,700 shares being sold at 44 and 900 at 45. Oil City Petroleum and Independence are fairly active at 30 and 18 respectively. Sovereign advanced to 43 and Monarch continues at last week's figure. Esperanza sold for \$1.30 and Caribou for \$1.10. The totals for the week were 32,052 shares at \$17,250.

#### They Are All in It.

The Eufaula Journal, commenting on the land scandals that are being unearthed in the Indian Territory, by which government officials have been profiting in oil and farm lands at the expense of the Indians, to whom the lands rightfully belong, says:

"Tams Bixby, king pin of the Dawes commission and vice chief of a concern that buys, rents, sells, leases and mortgages Poor Lo's real estate, he's into it; J. George Wright, special Indian inspector, so-called governor of Indian Territory and director general of sundry and divers land companies, he's into it; Pliny Soper, attorney for the northern district of Indian territory, Frisco railroad and Cherokee Oil and Gas company,

he's into it; Cliff Breckinridge, member of the Dawes commission and formerly United States ambassador to St. Petersburg and Arkansas congressmen, he's into it; Guy P. Cobb, until recently internal revenue inspector for Indian Territory, but now the largest stockholder in the Tribal Development company, he's into it; Tom Needles, another member of the Dawes commission and vice-chief and high muck-a-muck of the International Bank and Trust company, he's into it; Jim Huckleberry, assistant United States attorney, and his son, Jim, junior, they are into it; Charley Davidson, clerk of the United States court at Vinita, he's into it; G. W. Hopkins, chief law clerk for the Dawes commission, he's into it; P. G. Router, clerk in charge of the land office under the Dawes commission, he's into it; but why prolong this list ad infinitum? They are all into it and none of them can touch bottom."

#### Richmond to Have an Asphaltum Plant.

An asphaltum plant is projected for this city and its location will be in the Santa Fe tract, somewhere along Ohio street. The Record could not learn the name of the gentleman who is at the head of the enterprise, but he hails from San Francisco and it is understood several thousand dollars will be invested in the enterprise.

That the project is bona fide and not composed of that warm ethereal element vulgarly termed "hot air" in the language of the street, is evidenced by the fact that Contractor Fred Meyers has been awarded the job of supplying the necessary sand and gravel, which is an essential element in the composition of asphalt. Furthermore a contract has been awarded the new establishment by McEwen brothers, for the construction of 9,000 cubic yards of sidewalk along certain streets in the Santa Fe tract hereafter to be designated by the said McEwens. It is understood contracts for more walks of the same material have been entered into by private parties.

All this work will have the effect of materially advancing the stock of this portion of town and will make it more desirable as a place to live and transact business.—Pt. Richmond Record.

#### Baku Has a Big Fire.

The associated press dispatches from Berlin, to the daily press reports that all petroleum wells except one, at Baku, in Russian Caucasasia, on the Caspian sea, are burning. Baku is the petroleum center and should the report prove well founded the loss will be enormous.

#### Bakersfield and Ventura Electric.

We have mentioned in these columns recently the incorporation of the Bakersfield & Ventura Electric Railway, and its purpose to build an electric line of road from Los Angeles to Bakersfield by way of Hueneme, Ventura and Sespe canyon. It is now announced by its vice-president, Maj. H. M. Russell, that the road will be built through to San Francisco, coming in by way of San Jose. Major Russell has just returned from the East, where he succeeded in floating sufficient bonds to provide for the first section of the proposed line. Speaking of the plans of the company, Major Russell says:

"After eighteen months of hard work, we are able to announce the ultimate aim of the company, which is to build a through electric line from Los Angeles to San Francisco, equipped with the latest rolling stock and constructed for making fast time. The acquisition of rights of way between Hueneme and Sunset, through Sespe, and the sale of our bonds, make immediate construction of the line between these two points possible. We are rushing track work from Bakersfield to the coast, and that part of the system will soon be completed. We have all our contracts made and rails are

on the way. Grading has begun on the Hueneme section.

"Surveying parties of the company have been quietly at work for some time running their lines for the through road to San Francisco, north from Sunset by way of San Jose, and south to Los Angeles from Hueneme. A tolerably complete right of way between the two cities has already been secured. The line will ultimately be electric, though it is likely that at first the company will use steam. Standard gauge tracks are to be laid the entire distance."

The predicted rush of oil operations all over the Muncie-Parker City, Indiana, field has begun, and there is a general clamor by men who have a few dollars laid away in their bureau drawers to get into the oil business. A Hartford City paper claims that conservative, sound business men are not in a hurry to invest in oil property in that district, and that when a man of this kind is seen to be operating in the field, it is usually a safe guess that he is either in a thoroughly tested territory or that he is spending somebody else's money in an experiment.

There is a very noticeable renewal of activity on Spindle Top and the oil field begins to wear an air of prosperity. A number of the wells have been cleaned out and are again producing under the pump, while the Guffey company continues to sink new wells. Other companies are also figuring on contracts for new wells.

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**Another Editor's Complaint.**

The editor of the Willows "Journal" has the following to say of the beauties and joys of running a newspaper:

"Six years ago, in our childish innocence, we thought the newspaper business a thing of beauty and a joy forever; today we know it is a more difficult job than managing a lunatic asylum. Our young and hopeful mind pictured a newspaper man's road through life unto a green path through a sweet field of clover; but, alas, we have found it more like a trip up a hot and ugly street covered with fresh crude oil. And if our subscribers would only love us for the enemies we have made, we wouldn't be so profane every time we look at our subscription book. Thank heaven, however, we have a rich stock of experience on which there is no mortgage, and we hold one comforting thought which is: That if there is any such thing as a recompense and a hereafter, the country editors will all be politely ushered into the pearly gates by St. Peter and handed a well-tuned golden harp."

**Close Call for the Jug.**

A Southern editor had the following narrow escape, and he tells how he came out of it thirsty:

"We are suffering from a broken leg and we have been criticised by gum-heads for not saving it when we could have done so; but any gentleman will understand our position. It was this way: We were riding in a horseless carriage, drawn by a mule, with a jug of ten year old lick by our side. We came to a hog wallow into which the wheels on one side dipped and the buggy was overturned, throwing us out. Our right leg caught in the spokes of the wheel and we could have drawn it out, but the jug was there in jeopardy, and had we saved our leg we would have sacrificed the jug, and we did right. Anyhow, our leg was broken only in two places."—Hardeman, Tenn., Free Press.

**Zephyrs From the Oil City "Blizzard."**

These are stirring times for the jelly spoon.

With the powers arrayed against him, the Sultan would for once be at Bey.

There is but one thing meaner than the vulgar street corner loafer, and that thing has not been discovered yet.

Speculators who are "short" on radium are advised to cover. It is now quoted at \$100,000 an ounce and still radiating upwards.

The trouble seems to be in this life that we never have enough of anything until we have too much.

"Honesty" is defined by a grocer, as too much sugar for the price of said.

Milkmen rarely visit summer resorts. They usually have a watering place right at home.

The Philadelphia Record avers that the best part of fishing is lying about it afterward. This might be true in some cases. In others the best part of fishing is either mighty good fishing or the anticipation of the same.

Every man may have his price, but some of them can never realize on it.

Langley, like the rest of us, will probably have to become an angel before he can fly successfully.

A woman filling out papers for a place as matron in a New York police station wrote: "I certainly should be fit for the job, as I have been a widow off and on for nearly fifteen years."

When we see two feeble old women, sitting on a porch and merely waiting till the shadows have a little longer grown, we always wish that smoking was more generally indulged in by females. The old man, who is waiting for the last call, seems to derive consolation from his pipe, but the old woman seems to have nothing whatever to do.

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The Land Department of this paper has had placed with it for disposal a 20-acre lease in the Sunset District on terms that make it a most inviting proposition. The property has one good well on it with standard rig, boiler, engine, etc. The land is most beautifully located for operating and is surrounded close up by some of the best known companies in the Sunset field. The new Jewett & Blodget pipe line crosses this land and it is within easy reach of the railroad station. The lease has seven years yet to run on a sixth royalty basis. The principal owner of this property is going east to reside permanently and is desirous of closing out all his interests here.

The price asked for this lease is extremely low considering the productive capacity of the land.

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### Hard on the Hair.

A press dispatch from Texas says: "The experiment of dipping 10,000 steers in vats filled with Beaumont cruds oil for the purpose of relieving them of fever ticks, is in progress here. It is thought that the oil will eradicate the ticks. The cattle are owned by M. Haiff & Brother. The experiment is attracting the attention of cattlemen throughout the country." Commenting on the foregoing, a Titusville contemporary, the Courier, says: "There is no doubt but that oil will do the work, but it is likely that it will take off the hair, unless it is washed off after being applied. It is a common practice in the upper oil regions to dip dogs in crude oil to kill fleas and it puts a finish to the fleas in short order. The writer has frequently taken his dogs by the ears and put them into a tank of oil up to the eyes. After allowing it to remain on for half an hour the oil should be washed off with water and soap."

### Beale Memorial Tower in Bakersfield.

The contract has been let to a local contractor for the memorial tower to be erected in Bakersfield by Truxton Beale in memory of his mother. The building will be of sandstone with a large amount of steel work. The structure will be in the form of a tower surmounted by a clock. The tower will be constructed opposite the Beale Memorial library.

### California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, September 23rd:

ALMA.			
600 at	1 35		\$ 810 00
APOLLO.			
100 at	40		40 00
CARIBOU.			
100 at	1 05		105 00
100 at	1 10		110 00
ESPERANZA.			
100 at	1 30		130 00
FULTON.			
10 at	3 00		30 00
HANFORD.			
12 at	130 00		1,560 00
1 at	131 00		131 00
2 at	133 00		266 00
15 at	133 00 (B 15)		1,995 00
1 at	132 00 (S 90)		132 00
1 at	134 00		134 00
10 at	135 00		1,350 00
HOME OIL.			
500 at	87 1/2		437 50
200 at	85 (S 30)		170 00
100 at	90		90 00
100 at	90 (B 90)		90 00
100 at	90 (S 90)		90 00
300 at	95		285 00
1,000 at	97 1/2		975 00
INDEPENDENCE.			
7,000 at	18		1,260 00
JUNCTION.			
2,000 at	20		400 00
LION.			
400 at	04		16 00
MONARCH.			
500 at	55		275 00
1,100 at	54		594 00
100 at	53		53 00
MONTE CRISTO.			
100 at	75		75 00

### OCCIDENTAL OIL.

500 at	19		95 00
OIL CITY PETROLEUM.			
5,000 at	30		1,500 00
PITTSBURG OIL.			
625 at	30		187 50
REED CRUDE.			
4,700 at	44		1,960 00
900 at	45		405 00
SHAMROCK.			
200 at	39		78 00
30 at	37		11 10
SOVEREIGN.			
30 at	37		11 10
100 at	38		38 00
1,000 at	39		390 00
400 at	40		160 00
1,000 at	43 (B 90)		430 00

### STERLING.

15 at	2 75		41 25
SUPERIOR.			
2,000 at	07		140 00
TOLTEC.			
1,000 at	20		200 00

32,052 Shares Amount \$17,250.45

### FISHER R. THEATRE CO.

100 at	2 75		275 00
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### HANA PLANTATION.

50 at	20		10 00
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### NORTHERN CAL. POWER CO.

50 at	9 25		462 50
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### UNITED R. R. BONDS (4's).

1,000 at	79 50		79,500 00
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1,200 Shares Amount, \$80,247.50

The monthly record of sales since January 1, 1903, is as follows:

	Shares.	Value.
January	267,019	\$255,202
February	322,443	219,358
March	199,908	151,982
April	236,268	115,571
May	401,454	154,386
June	154,720	117,928
July	74,594	71,890
August	181,478	119,231

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma		
Apollo	.40	
Asso. Oil Co Stk. Tr.		
Certificates	.20	.22
Aztec		
Bay City	.10	.11
Bear Flag		
California Standard		
Caribou	1.07 1/2	1.10
Central Point Con.	.65	
Chicago Crude	.20	
Claremont	.24	
Esperanza		1.30
Fauna		
Four	.67	.69
Fulton	2.95	3.25
Giant		
Hanford		140.00
Home		.95
Homestake		
Imperial		20.00
Independence	.17	.18
Junction		.21
Kern		5.00
Kern River		
Lion	.03	
Monarch of Arizona	.52	.55
Maricopa		
McKittrick	.10	
Monte Cristo	.74	
Nevada		
Occidental of West Va	.18	.20
Oil City Petroleum	.89	.90
Peerless	14.00	14.25
Petroleum Center		
Piedmont		
Pittsburg		
Reed Crude	.42	.43
S. F. & McKittrick	2.75	
San Joaquin O. & D.		
Senator		
Shamrock		
Sovereign	.39	.41
Sterling	2.70	3.00
Superior	.06	.07
Thirty-three		
Toltec	.20	.24
Twenty-eight	4.00	4.20
Union		
United Petroleum		
West Shore	.90	
Western Petroleum		
Wolverine		

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9:30 A. M.—\*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

9:30 A. M.—\*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

4:00 P. M.—\*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

8:00 P. M.—\*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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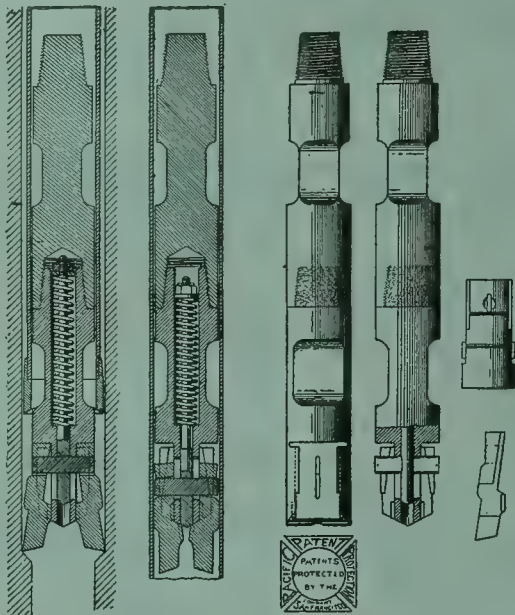
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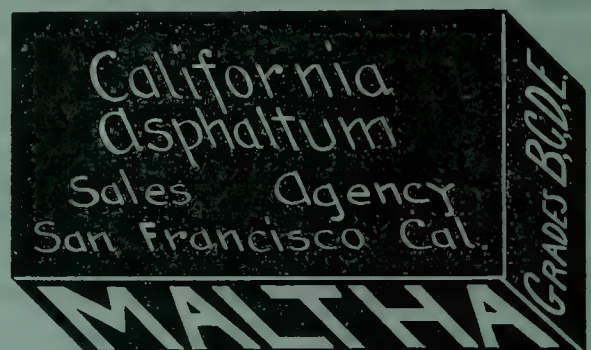
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Vol. 4. No. 48.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 3, 1903.

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# PACIFIC OIL REPORTER

VOL. 4. No. 48.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 3, 1903

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Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

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### ANTI-CLINALS.

Schmitz, Crocker, Lane—two to one that somebody gets left.

Governor Pardee thinks those guards at Folsom should have shot at the escaping prisoners anyway, even if Warden Wilkinson was in line. The governor is having a hard time getting rid of Wilkinson. He is the only inmate that doesn't seem inclined to want to escape.

When we see so many post office and custom house officials falling over each other trying to get into jail we are really glad that our party got licked at the polls. As it is we are under no obligations to thus tempt our humanity by accepting a public trust that hasn't a time-lock on it.

Dimmick, the convicted chief clerk of the San Francisco mint, who was sent to San Quentin to sojourn for a term of years, doesn't like the place as well as might be expected, and has petitioned the state board of pardons to let him quit. It is not likely that his request will be granted. He might petition for a transfer to Folsom and then walk out of his own accord.

Those in authority are either unable or indisposed to enforce discipline at the State University. Last week one professor had to abandon his class of freshmen because they kicked up such a racket. President Wheeler should exchange place with Warden Wilkinson for awhile. Wilkinson would either have those hoodlums in straight-jackets inside of a week or else induce them to escape.

According to the Los Angeles newspapers, that city has the worst police force that ever was. The criminal classes are running the city to suit their pleasure while the police force is devoting its energy chiefly to suppressing newspaper criticism by arresting the editors and haling them to prison. If the police and the criminals belonged to the same union they couldn't work in greater harmony. Los Angeles should annex itself to San Pedro for self-protection.

### EDITORIAL NOTE AND COMMENT.

In our issue of September 19th we published an item on the authority of the Bakersfield Californian to the effect that the "Spreckels-Crocker-Woolworth people have, in addition to their control of the Monarch property at Sunset, absorbed the several leases of that company, the Obispo, etc." We are in receipt of a letter from the secretary of the Obispo Oil company saying this information is not true so far as that company is concerned. We call the attention of our readers to this correction.

We publish in this issue the report of the United States Geological Survey on the production of oil in California for the year 1902. While this report will read like ancient history to most of our readers we print it for the reason that it is issued under the authority of the government and bears the stamp of being "official." However, were we so disposed, we could point out many misleading and incorrect statements in this report, but in the main it is correct and contains much valuable information. The wonder to us is that the government can get as much reliable information as it does about the California oil industry when we take into consideration the very crude way by which the information is gathered.

President Roosevelt has called the turn on those labor unions that have been resoluting on his action in re-instating a man in the government printing office who had been expelled from a labor union. The unions denounced the president as an enemy of labor and sent five members of the executive committee of the Federation of Labor to secure the dismissal of Miller, the offending employee. The president refused point blank to grant their request and read them a lecture that sounds very much like the old original declaration of independence. He told the delegation of labor leaders that he had sworn to defend the constitution and that as that document made no distinction between a non-union and a union man neither could he. This seems to have closed the incident so far as the president is concerned.

The building of the Burson electric road from Bakersfield to Los Angeles via Ventura has undoubtedly put a quietus on the Midland Pacific proposition. Just what Eastern influence is back of the Burson road is not yet clear, but evidently some of the big trunk lines is fostering the enterprise. Some think it is the Santa Fe since it has been announced that the new line will run into Bakersfield from Sunset on the Santa Fe track. Others have advanced the opinion that the Western Pacific is back of it and that that road will build down the west side of the San Joaquin valley and form the connection at Sunset, and thus gain an entrance into Los Angeles and Southern California. At any rate it looks as though the road would be built and that is the thing that is desired by those who are most interested in the territory through which the road is to run.

The operators in the Sour Lake field seem to have learned nothing from the experience of Spindle Top. Anybody with brains enough

to last him over night knows that an oil field where the wells are put in as thick as trees in an orchard not only has a short lease of productive life, but that its existence is constantly menaced by the danger of fire. Spindle Top was several times swept by destructive fires and Sour Lake has already had costly experience from contact with the fiery element. The latest fire entailed a loss of \$100,000. The fire started as usual by the carelessness of a fireman, aided by the almost criminal negligence of leaving great quantities of oil flowing about on the ground like water. The central part of the Shoestring was burned over, taking in about fifteen rigged and producing wells, including several drilling rigs, tanks, boilers, engines, pipe-lines and various other property and machinery incidental to the field.

### AN IMPORTANT LAND DECISION.

The decision of the Supreme Court in the case of Chrisman et al. against Miller and the Home Oil company ought to settle a point of law on which there has been a wide diversity of opinion among so called "oil men," that is locators who take up oil land under the placer mining act. The belief is almost universal among this class of locators that a notice posted up at some corner of a so-called placer mining claim on the first day of January holds the land against all comers for two years without the performance of any assessment work, and that the land can be held indefinitely by erecting each year thereafter a 20-foot skeleton derrick or plowing a few furrows on a side hill under the pretense of building a road. Such alleged assessment work was followed up by an affidavit filed in the county clerk's office affirming that the cost of such work amounted to not less than \$200, etc. Thousands of acres of oil locations are held under such interpretation of the placer act in California and other states. The better informed did not need this later decision of the Supreme Court to dispel the fallacy of such an interpretation of the law, for the decision of Judge Ross of the United States Circuit Court on this point made plain the operation of the law as applied to oil lands.

Under these decisions a "discovery" is not made on oil lands until a well is sunk and oil is thus found. A locator who files the proper notices and then goes onto the land, erects a derrick and prosecutes drilling operations cannot be dispossessed no matter how many prior locators are claiming under former filings in the manner above indicated. A discovery means something more than simply selecting a piece of vacant government land, driving stakes at each of the four corners, posting a notice on the land and filing the original in the county clerk's office in the county where the land is located. It means erecting a derrick, drilling a hole to the oil sands and thus actually "discovering" oil. From that time the law begins to run as in the case of a discovery of mineral in place.

The decision will bring consternation to many who are covering up large tracts of what are believed to be oil lands in the outlying oil districts in this and other states, in the hope of speculation in case an actual discovery is made. It will open up these lands to those who would do actual development work and thus greatly stimulate the extension of the industry in new fields.



## BRAINS AND ENERGY THE BEST CAPITAL.

If brains were a commodity that could be purchased and used like a suit of clothes or a gown or the food that we eat those who have the most money would have the most and best brains. Then brains and money would become inseparably connected and the richest man would have the most brains. Rockefeller and Morgan would get a corner on the brain market and the lunatic asylums would soon become the centers of population. Were such a condition to exist a complement of brains sufficient to enable a man to make a success in life would command a fortune and most of us would have to be content with wheels instead. Fortunately the reverse is true. But it is true to the extent only that the possessor cannot be dispossessed. The most valuable commodity in the world to-day is brains. Next is energy. The man who is fortunate enough to be possessed of both brains and energy has as much capital to begin with as did Rockefeller and Hill and many of the millionaires whose names are synonyms for fortune.

It is a familiar saying that "money makes money." The saying is not true, however. Money **earns** money, while only brains and energy **make** money. The young man who has a clear, active brain and a reasonable amount of energy is immeasurably equipped for success compared with the fool or simpleton who inherits a fortune. It is an old saying that the "fool and his money are soon parted." Without stopping to inquire how the fool came to have the money it is safe to conclude that the man who finally gets it is the one with the best brains.

In the commercial world men of brains and energy command a high premium. It is likewise true in the field of literature and philosophy. The great railroads, banks and moneyed corporations of the land are on the skirmish for brainy men. A man's nationality or religion or family associations count for nothing if he but have the right kind of gray matter within the circumference of his hat band. The writer once worked in a printing office with a man who to-day commands a salary of \$8,000 a year as manager of a daily newspaper. The business manager of the great Hearst estate, getting a salary of \$25,000 a year, a few years ago was running a grocery store in Fresno. But he had brains, and while it takes brains to sell tea and codfish and make a decent living at it as he did, a man of Ed. Clark's business capacity don't have to stay in a grocery store all his life, unless he wants to.

John D. Rockefeller started in the oil refining business less than forty years ago with a few thousand dollars. His refinery, one of the smallest in existence and situated a long distance from the source of oil production, attracted little attention in the commercial world. But its owner had a reserve of capital in brains and energy possessed by none of its competitors. It was the kind of capital that counts, as the sequel proves.

Five years after this insignificant refinery was established it had absorbed by association or combination four others of the largest refineries in the country and the Standard Oil company was organized with a capital of \$1,000,000. By surpassing skill the Standard Oil company grew in seven years from a concern controlling 4 per cent of the refined oil product into one controlling 95 per cent. The success and growth of the Standard Oil company is attributable almost wholly to the

efficiency and skill of its management. That this is true, or at least that it was recognized by great financiers as early as 1879 as being primarily true, we quote in substantiation the testimony given by William H. Vanderbilt in reply to questions before the Hepburn Committee in 1879. In reply to the questions asked him Mr. Vanderbilt replied:

"Question. Can you attribute, or do you attribute in your mind, the fact of there being one refiner instead of fifty now to any other cause except the larger capital of the Standard Oil company?"

"Answer. There are a great many causes; it is not from their capital alone that they have built up their business. There is no question about it but that these men—and if you come in contact with them I guess you will come to the same conclusion I have long ago—I think they are smarter fellows than I am, a good deal. They are very enterprising and smart men. I never came in contact with any class of men as smart and as able as they are in their business, and I think that a great deal is to be attributed to that.

"Q. Would that alone monopolize a business of that sort?"

"A. It would go a great ways toward building it up. They never could have got in the position they are now in without a great deal of ability, and one man would hardly have been able to do it; it is a combination of men. They are very shrewd men. I don't believe that by any legislative enactment or anything else, through any of the states or all of the states, you can keep such men down. You can't do it. They will be on top all the time. You see if they are not."

[Hepburn Report, New York, 1879, page 2,605.]

The same thing can be said of all the great corporations of the country. Brains, energy and capital form a combination that is overwhelming.

Too many people overestimate the value of money and underestimate the value of brains. Money is valuable only to those who know how to use it. In the hands of a spendthrift it is a curse, but in the hands of an economist it is a great blessing. That man is thoroughly equipped for business who has a clear brain, an active mind and a generous heart. The great men of history had only that capital to begin with.

## MORE MONEY LOST IN FARMING THAN IN MINING AND OIL.

It is a common saying that there is more money lost in mining than there is made out of it. This statement is not only untrue but it is absurd. As a matter of fact there is more money lost in farming than in all the other industries combined, although this fact is not commonly known nor will it scarcely be believed. The total loss sustained by the farmer year after year from pests alone foots up stupendous figures.

According to data gathered by the Chicago "Inter Ocean" the farmers of that section have sustained an aggregate loss from insects alone of \$250,000,000. The damage wrought is divided thus: Caused by the chinch bug, \$70,000,000; grasshoppers, \$80,000,000; Hessian fly, \$35,000,000; caterpillar, \$3,000,000; apple worm, \$7,000,000; boll weevil, \$50,000,000; potato bug, \$5,000,000. No account is taken of the loss sustained from storms, floods, frost and drought, but these are known to be enormous. There is no business that presents as many discouraging features when viewed from a financial standpoint as farming.

### Talking too Much.

"If the oil men would only take lessons from the cotton planters they could learn a lesson that would profit them greatly," said M. A. Davey, who has spent the greater portion of the past few months at Sour Lake, where he has large interests, to a "Tribune" man this morning. Mr. Davey is now in Gal-

veston looking after his cotton business here. "When a farmer knows that he will make from one to one and a half bales of cotton to the acre he will swear until he is black in the face and blue on the nose that he will not produce more than half a bale to the acre. When an oil man gets a well that will flow from 300 to 400 barrels of oil per day he will shout from the housetops and through all the newspapers he can command that he has a well that will produce from 3,000 to 4,000 barrels of oil per day.

"I do not believe there is a well at Sour Lake, or Spindletop either for that matter, that is not overestimated as to the amount of oil that it will produce. Every gusher at Sour Lake is greatly exaggerated. No mention is made in newspapers of the failures occasioned by incompetent drilling, or wells that turned out to be second-rate pumpers right in the heart of the proven field.

"When oil men realize that by exaggerating the production of their wells they are killing the goose that lays the golden egg and are bearing the market for their products, they will perhaps feel more inclined to publish the facts as they are and abstain from exaggerating every report that they feed to the newspapers. The field is unquestionably an immense one. It is far from my intention to belittle it in any way. There is a market in Texas and adjoining states, however, for every barrel of oil produced, and this oil will command from 40 to 50 cents per barrel at Sour Lake as soon as the true condition of affairs at Sour Lake is known to the consumers. Right now buyers are frightened from purchasing by exaggerated newspaper reports, and no one who has read what the oil men have published can blame them.

"The average output per well in the Wilde district at Sour Lake is about 250 barrels per day. There are some 60 wells in this tract. Some of them will go over this amount and some will go under. There may be a few more wells than I estimate and there may be a few less. But the number of wells and the output is a fair average in the Shoestring and on the north side there are about 60 producing wells. The average output of these is about 1,000 barrels per day, nine tenths of which comes from five or six large gushers. To my positive knowledge there are certain wells at Sour Lake that were heralded as 10,000 and 15,000 barrels per day capacity on account of having made a fine showing for a few minutes and were closed down on account of lack of storage facilities, that when tankage was finally secured and the wells turned on again, refused to flow at all. When I left Sour Lake Saturday one of these wells had been worked on for two or three days by experts with bailers in the hope of getting it to flow, but up to that time they had been working without success.

"There is too much hurrahism, too much vocal gush, too much imagination in the oil business. The oil men are cutting their own throats in their vainglorious efforts to appear the biggest things on the top side of the earth. There is too much exaggeration, too many false reports are given to the newspapers for the good of the oil business. It is high time that some plain truths were being told. I know that I will be assailed for telling some facts about the Sour Lake oil field, and if I am called upon I can cite instances to prove every statement I make. The conservative oil man does not wish these exaggerated stories to be spread broadcast, but right now there are more boomers than anything else in the business."—Galveston Tribune.



# Merger of Large Oil Properties.

## Puente and Columbia Companies in the Southern Field Consolidated.

A consolidation of the holdings of the Puente Oil company and the light oil territory of the Columbia Oil Producing company was effected yesterday, says the Los Angeles Herald of September 27th.

The merger includes in its terms 4,700 acres of oil bearing territory; the oil refining plant of the Puente Oil company, which is located at Chino, and has a refining capacity of 800 barrels every twenty-four hours; fifteen miles of three-inch pipe-line from the Puente wells to the refinery at Chino; eighty-five producing wells, six complete pumping plants, a thoroughly equipped machine and repair shop, ten drilling outfits and steel tanks of 100,000 barrels capacity. The output of light oil from this field at present is conservatively estimated at 20,000 barrels a month.

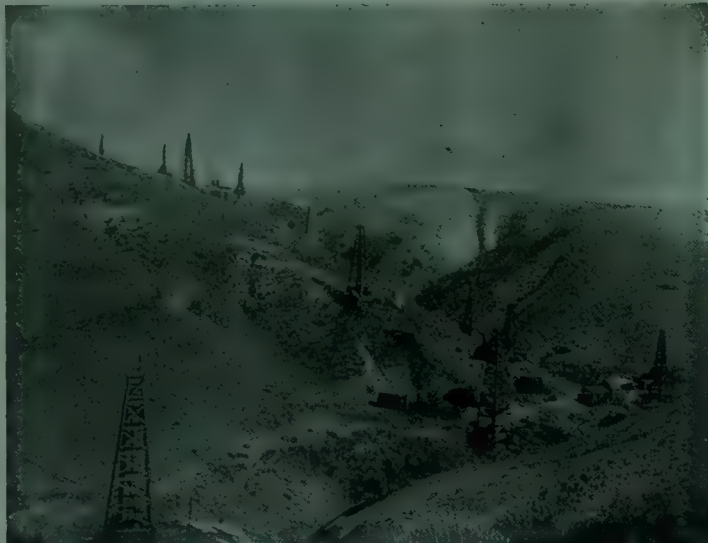
The oil territory included in the merger

pany and superintendent of the Chino refinery, will retain both positions with the consolidated companies.

The principal stockholders in the Puente Oil company and the ones most vitally interested in the merger are: W. R. Rowland, Isabella Lacy, J. A. Graves, H. W. Hellman, William Lacy, R. H. Lacy and H. E. Graves.

In the Columbia Oil Producing company W. L. Hardison, W. B. Scott, Harry Chandler, F. X. Pfafinger, Guy L. Hardison, L. E. Mosher, L. W. Andrews, F. M. Valle and Dr. D. W. Mott hold the controlling interest and subscribed to the merger.

The Columbia Oil Producing company will preserve its identity as a corporation and in addition to owning one half of the capital stock of the consolidated companies retains its heavy grade oil territory, on which it has nine



Some Wells in the Puente District.

produces light oil of specific gravity ranging from 32° to 34°, Beaume test, which readily markets at \$1.40 a barrel at the wells.

The product from the eighty-five pumping wells is stated by refiners to be the best grade light oil found on the Pacific Coast.

The oil produces a large percentage of gasoline, high-grade distillates and creates a superior illuminating oil.

The territory from which light oil of 34 gravity and of this character is produced is limited to a comparatively small area of the total oil producing territory on the Pacific Coast.

The consolidated company will be known as the Puente Oil company and will be capitalized at \$2,000,000. One-half of the capital stock will be issued to the Columbia Oil Producing company, the other half to the stockholders of the old Puente Oil company.

W. R. Rowland, president of the Puente Oil company, will be president of the consolidated corporations.

W. B. Scott, general manager of the Columbia company, will be vice-president and general field superintendent of the new company.

H. E. Graves, secretary of the Puente com-

pany, which produce between 4,000 and 5,000 barrels of crude oil a month. The Columbia Oil Producing company was organized in November, 1898, with W. L. Hardison as president, and commenced development work in what is known as the Fullerton oil belt. The policy of the Columbia company has been along the line of development and the enlargement of its working plant. The light oil territory of the Columbia company included in the consolidation is the richest in oil-bearing sand in California. Development test has shown oil-bearing sand of more than 1,000 feet in thickness, which increases in value with every foot drilled.

The Puente oil territory is one of the oldest oil fields developed in Southern California, and has been profit-bearing and dividend-paying since 1883, when the first well was sunk.

The Puente territory was developed by W. R. Rowland, president of the original Puente Oil company, and chief executive officer of the consolidated companies, and the late William Lacy.

As contemplated, the consolidated companies will proceed at once to increase the

working capacity of the combined plants in every department.

The refinery at Chino will be enlarged to meet the demands of the increased output of crude oil. In the near future the pipe line will be increased to include a direct line to the Fullerton field to connect with the line now in operation from the Puente wells.

The consolidation of the Puente and Columbia companies is with one exception the largest oil deal ever consummated in Southern California, and carries as great an oil value as any deal of record. Fully developed, the merged property will be one of the most valuable oil-producing territories on the Pacific Coast.

### Enthusiastic Over Oil.

Captain Burnham and Mr. Lassoc, general manager and superintending engineer respectively of the American-Hawaiian Steamship company, are both enthusiastic over the future of California oil for fuel. Two of their nine steamships are now burning oil, and they are now planning to install oil burners on all their vessels.

"Oil fuel has passed the experimental stage with us," says the captain. "Our system, installed by Mr. Lassoc, is absolutely perfect. He may have to find a station in the Straits of Magellan as an oil depot, and then there are many problems to be worked out, as, for instance, the effect of the low temperature in the southern latitudes. But there seem to be no insurmountable obstacles and we shall probably be ready before long to make the change. I regard the discovery of oil in California as the most important single event on the coast. The fuel is cheap, practical and, properly handled, perfectly safe. I don't see why the lack of cheap coal need hamper manufactures here. All you need is iron."

### No Wonder We Grow.

Along with the news that work on the uncompleted part of the Salt Lake route is now progressing, with a full force of workers, comes the announcement of projects to develop the iron and coal resources on the line. Spurs on the main line are to be constructed to tap deposits at some distance from the through route. At the same time preliminary work will be pushed in the mining localities, with the object of being ready for iron production, on a large scale, as soon as transportation facilities are ready.

The development of iron ore, on the route of the Salt Lake railway, is a matter of vital interest in the future of Los Angeles. Such development means the establishment, in this city, of large works for the conversion of ore into the many forms of iron and steel needful in what is now appropriately called the "steel age," in respect to structural industries. The era of steel-frame buildings has just opened in Los Angeles, with wonderful future promise, and that is only one of many uses to which iron ore will be adapted.

With direct bearing on this outlook it is reported that the various works required by the Salt Lake road, machine shops and the like, will certainly be located in this city, all the necessary land for the purpose having been secured. In view of this prospect for rapid expansion in Los Angeles it is not so surprising that fifty vessels are now in port at San Pedro, laden with 50,000,000 feet of building material for this city, enough to erect more than 3,000 ordinary dwellings.—Los Angeles Herald.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Sept. 22, 1903.

California Oil Fields Limited are rigging up No. 15.

After cessation of development work for a long time, the El Capitan Oil company is again rigging up for a well—No. 3.

A new company, the name of which cannot be ascertained, is rigging up on section 25, 20-14, on the lease of Messrs. Smith & Bryner.

The Westmoreland-Coalinga Petroleum company are busily rigging up No. 1 and expect to spud in shortly. Mr. W. P. Kerr is its field manager.

The Pleasant Valley Farming company is putting up two 1,200-barrel tanks preparatory to receiving the oil from the well it is now

should its No. 2 well come in with 2,500 barrels per day.

At a regular meeting of the board of directors held on the 14 inst., the New San Francisco Crude Oil company, an assessment of 5 cents per share was levied on the capital stock of the company. Last week the company awarded a contract to Mr. Guthrie to shut off the water that broke into its No. 1 well and Mr. Guthrie is now at work on it. The company has also made a contract to deliver the oil to the Pacific Coast Oil company in the future.

The recent jump in the value of proven oil lands in this field is largely due to the great number of capitalists coming to the field seeking land. Until very recently the extent and the resources of the field were not known to the oil men in general. The advent of the Standard pipe line, and a true and accurate representation of the field by this paper in the special Coalinga edition, has drawn the attention of outsiders. It is no uncommon thing to hear a visitor remark with surprise why this field is not more developed when there is a

or several days getting some fishing tools made.

Mr. R. V. Ellis, president of the Atlantic & Pacific Co., left here for San Francisco last Wednesday.

The American Consolidated have three gangs of drillers on the way from the California field to furnish crews for some of their numerous new rigs.

The American Consolidated company have completed No. 3 rig on section 23 and will start spudding in Monday next. They have No. 2 well down about 400 feet. No. 1 well is considered the best in the field.

The Standard Reserve company started spudding in at No. 1 on section 12 last Monday. They have No. 2 nearly ready for business. Each of these rigs are located one-quarter of a mile from the Jager well.

The American Consolidated company have commenced a rig on section 15, 15-118, in the Spring Valley district. This is located a little out of what is considered the proven district and the outcome is looked forward to with interest.



Some of the Oil Tanks and Loading Racks at Coalinga.

drilling and which is nearing completion. The company is now at work on No. 2 rig, locating it 700 feet from Section Seven well.

At a meeting on the 7th inst., the El Zumo Puro company levied an assessment of 2 cents per share on the capital stock of the corporation. This company has now three producing wells, is building a derrick for No. 4, and it will continue to drill wells until it has completed ten in number.

R. C. Baker is building rig No. 2 on his lease on section 23, 20-14, and will begin drilling shortly. Mr. Baker has had his well on section 14 perforated after penetrating nearly eighty feet of coarse oil sand, and at this writing the well is flowing at the rate of about 100 barrels per day.

The Section Seven Oil company has added two new 1200-barrel storage tanks. With this addition the company has a storage capacity in tankage of 5,000 barrels, with nearly an equal reservoir capacity. This amount of storage and a six-inch line to the Pacific Coast oil tank on section 6, will afford them abundant facilities for disposing of the oil even

possibility of striking wells flowing oil amounting to a thousand and more barrels per day, and that of a gravity in far greater demand than the heavier oil. The forty producing wells on the west side are stretched out over a distance of seven miles, while the seventeen drilling rigs are mingled in between and occupy practically the same course, stretching out east and west two miles. In this territory, seven miles long and two miles wide, can be seen the possibility of unprecedented progress. A glimpse of this is inviting and tempting to visiting capitalists. It possesses unequal facilities in roads, water supply and pipe lines. All these features have been realized to the extent that nearly every train brings in men interested in the oil industry.

R. M. D.

### The Wyoming Field.

EVANSTON, WYOMING, SEPT. 26, '03.

Mr. W. A. Gray, superintendent of the Atlantic & Pacific has been in Salt Lake City

The Atlantic & Pacific Co. struck a heavy gas flow in No. 1 well on section 26 last Tuesday, between the first and second sand. They expect to reach the second sand at any hour. This well was a good producer at the first sand but that was cased off and drilled deeper with the hopes of getting a better flow.

The Atlantic & Pacific Co. met with a serious accident on Thursday. While pulling a string of casing the entire derrick was pulled in, making a complete wreck of it. A stem and some of the machinery was more or less damaged. This was at well No. 4 on section 22, and they will be shut down a week or more making repairs.

The American Consolidated company have lumber on the ground to make seven rigs in all on section 23. They expect to complete this number of wells on that section by December 1st. They were unloading another car at Spring Valley Friday but it cannot be said for what section. This company is destined to be the largest operator in the Uinta field at the present time.

Some of the stockholders of the Bettys Oil



and Development company were here last week. They stated that they were well pleased with the prospects of that company. They have now got the water shut off and are down about 700 feet and in a fair way to complete the well within thirty days. They already have a good showing of oil at a depth of 550 feet. E. S. E.

### Half Moon Bay Field.

HALF MOON BAY, Sept. 30, 1903.

The Pillarcitos Oil company has resumed work after waiting some time for casing.

The High Gravity Oil company is making fair progress on the well which is now to exceed 1,200 feet in depth.

The Wisconsin company after reaching a depth of about 1,550 feet closed down waiting for 4 1/4-inch drive-pipe. They have passed through several oil strata and have already taken about \$1,500 worth of oil from the well.

The Paxton company has resumed work and are making fairly good progress. They had to wait some time for casing. When work was started they bailed more than thirty barrels of 52 gravity oil from the well that had seeped in during the temporary shut-down.

J. E. Kerr of San Francisco, who has been operating in this field for two years, has concluded to drill some wells on his own account, personally furnishing the money therefor. He has one well already several hundred feet deep with fairly good indications for oil.

HALF MOON.

### An Important Land Decision.

A suit involving the title to oil land in the famous section 20, Coalinga district, has just been decided by the supreme court in favor of E. O. Miller and the Home Oil company and against A. Y. Chrisman and H. T. Chrisman and J. W. Fewel. The two Chrismans claim to have made locations on the 22nd day of December, 1898, whereas the plaintiff, in his own name and in the names of several associates, made locations on the same property on January 1, 1897.

The contentions of the defendants and J. W. Fewel, who was an intervenor, were that the original locators, A. Barieau and seven associates, conveyed their location to Miller and the latter attempted to re locate the land while there was a valid subsisting location upon it; further that the Barieau location lapsed on the 1st day of January, 1897, by reason of failure to do assessment work and so the land became open for exploration and location upon January 1, 1897, that is to say at the time when defendants made their location. None of the appellants claim under the Barieau location, but claim as original locators, on the theory that when they did locate the land was open for exploration and location and was, in fact, public land.

Miller, in spite of his conveyance from Barieau, did what Barieau had failed to do, says the court—went on the land, developed it by boring wells and reaching oil in paying quantities, and thus not only made in its fullest sense a discovery, but was the only one who did so. Furthermore, Miller and his co-locators remained in actual undisturbed possession from the date of their location until the commencement of the action. Hence the court finds that Miller and his grantees are the persons rightfully entitled to the property.

When writing to advertisers always mention the PACIFIC OIL REPORTER.

### A Wide-Felt Loss.

With extreme regret we announce the death of W. B. Winn, editor of the PACIFIC OIL REPORTER, and a salaried member of the staff of the "National Oil Reporter." Mr. Winn furnished us the oil news of California, to the accuracy of which our many readers can testify.

Mr. Winn died of abscess of the brain on September 9. We are not conversant with the history of his life, beyond the fact that he was the best-known and most esteemed writer upon petroleum topics on the Pacific Coast. In writing to us of his death, Dr. C. T. Deane, secretary of the California Petroleum Miners' Association, says: "The death of Mr. Winn is a great loss to the oil interests of California. He was a kind and genial gentleman, and we shall miss him very much."—National Oil Reporter.

### Personals.

John M. Wright, president of the Peerless Oil company, visited Bakersfield this week.

J. H. Elmore, of Green Bay, Wis., has been in the city this week. He will engage in the oil business in the Coalinga field.

H. U. Maxfield returned from the McKittrick field the early part of the week. He reports little development work going on in that field.

Charles Sharp, of Hanford, was a caller on Thursday. Mr. Sharp is heavily interested in the Devil's Den district and is sanguine of the future of that field.

Jefferson E. Doolittle has been appointed by Governor Pardee trustee of the State Mining Bureau, vice Ross E. Browne, resigned, on account of his removal to South Africa.

Robert Mitchell, Henry Mitchell and George Mitchell, three of the Mitchell brothers who own the big Mitchell Consolidated copper mine at Cananea, Mexico, and other valuable copper properties in the southern republic, are at the Palace Hotel, negotiating for the purchase of the big Copper King smelter at Bay Point, Contra Costa county, and it is announced that if they do not succeed in acquiring the property from the creditors of the Copper King company they will erect a smelter on a site already secured in the neighborhood of Antioch.

### Sour Lake Development.

It is to be doubted if, in the history of mineral or petroleum industries, an equal amount of development has been effected in the same space of time as has marked the opening up of the Sour Lake field. That the result of this work has been highly satisfactory in so far as proving the magnitude of the field, is shown beyond doubt by the fact that nearly 50,000 barrels of oil are being moved daily by the pipe-lines and railroad from Sour Lake. Estimates of the capacity of the 75 producing wells that have been completed in the field are conservative of making the amount 100,000 barrels daily. More than 100 new wells are drilling and within sixty days the present capacity may be nearly doubled. Present facilities permit of the moving of 50,000 barrels of oil a day; with the completion of additional facilities, including storage, it will be possible to move 100,000 barrels a day.

### Petroleum Notes.

The Roumanian minister of war has decided to introduce oil fuel on all the vessels of the Roumanian war flotilla.

The Colonel Drake Oil company, composed of Geneva and Oil City, Pa., capitalists, and having under leases some of the best territory in Jay county, Indiana, field have sold all their holdings to Eastern capitalists. The selling price was \$1,000 per barrel, making the total purchase price, \$45,000.

The Columbia River and Northern Railway of Oregon will probably be able to use oil as fuel on the locomotives of its road some time during the coming month. Huge oil tanks are now being constructed to handle the fuel, and as soon as oil can be handled to advantage the locomotives will be changed.

The David Crosby well, in the Jackson strip, at Sour Lake, Tex., has come in after being drilled deeper than any other well in the district. It is 1,650 feet deep and is estimated as a 1,500-barrel proposition. It is nearly in the heart of the town and evidences that the site for the city has been located in the oil field proper.

The oil and asphalt boom in Vernon county, Missouri, is assuming large proportions, and many land owners refuse to sell at any price. Two big drilling outfits are at work and numerous companies have been organized and some of them are expecting machinery daily. Oil experts from every part of the United States are pouring in on almost every train and they pronounce the showing for oil to be excellent.

Messrs. R. H. Childs and Ira Elliott, manager and superintendent respectively of the Central Oil and Refining company of Welsh, La., have completed arrangements with the Southern Pacific to lay a switch into the refining plant. Mr. Childs says that one unit of the refinery will be completed and in operation by November 15th. It will have a capacity of 250 barrels per day. The entire plant will be equipped and installed by January 1st next, when the total capacity will be 4,000 barrels per day.

### The Stock Market.

The stock market still continues dull. The feature this week has been the revival in Home. That stock heads the list in the amount of business. It advanced from 97 1/2 last week to \$1.27 and holders are inclined to tighten. Caribou dropped a few points. Esperanza is in demand with few offerings. Chicago Crude sold for 21, a slight advance. Oil City Petroleum dropped a point. Monte Cristo continues to decline. Reed Crude was quite active at former figures. Peerless got into the game again at \$14, likewise Four at 68; The totals for the week are 19,332 shares at \$16,538.

### Spindle Top Wells Abandoned.

According to the Sour Lake Oil News, the wells of the Keith-Ward Oil company on Spindle Top are in trouble. The tract was once regarded as the best in the section. The wells will be abandoned and the company will abandon the field altogether. The Keith-Ward wells have been showing up poorly for some time and the company considers that the labor and expense in getting them into shape are not commensurate with the returns in the way of oil to be procured.



# Report of U. S. Geological Survey.

## Being Full Report Upon the Production of Petroleum in 1902, for California.

The full text of the annual report upon the production of petroleum in 1902 has been received by the U. S. Geological Survey from the author, Mr. F. H. Oliphant, and the PACIFIC OIL REPORTER is enabled to present an advance abstract of this interesting and important document.

As stated in a brief bulletin giving the total production and certain salient features of the industry, recently published in these columns, the year was notable for a larger output of petroleum than any previous year, due principally to the development of fuel oil in Texas and California; a slight decrease in the production of the Appalachian field and a slight increase in the Lima-Indiana field; a decrease in the average price owing to the large amount of fuel oil produced; a considerable decrease in the stocks held in the Appalachian fields; a slight decrease in the exports of illuminating petroleum and an increase in the shipments of crude petroleum and lubricating oils.

The total production of crude petroleum in the United States in 1902 was 80,894,590 barrels, an increase of 11,505,396 barrels, or 16.58 per cent over 1901. Texas showed a gain of 5,830,994 barrels, or 132.7 per cent; and California an increase of 5,187,518 barrels, or 59.04 per cent.

That part of the report referring to California we print herewith in full.

The increase in the production in California during the year 1902 was remarkable because there were fewer wells drilled than in the previous year, and a portion of the time operations were partially suspended for want of the transportation of the production that had accumulated. The production and sale, even under the above conditions for the year 1902 was 13,973,848 barrels, the product of nearly 3,000 wells, as compared with 8,786,330 barrels produced and marketed during 1901. The value, however, was less in 1902 than in 1901 by \$106,223. The average price received during 1902 was 34.8 cents, as compared with 56.6 cents in 1901. There were stored at the various places of production 3,850,000 barrels of crude petroleum awaiting transportation. The State of California now stands next to Ohio in the production of petroleum in the United States, which place would have been conceded to Texas if the entire production in that State could all have been marketed. The existence of such quantities of cheap fuel in the southern portion of this State, which by pipe-line and ocean freight is conveniently transported to San Francisco, must add materially to the prosperity of this already prosperous State.

There were only 422 wells completed in California during 1902, as compared with 1,116 wells completed in 1901. The number of dry holes drilled in 1902 was 102, as compared with 209 in 1901. The wells in 1902 were drilled in eighteen counties from the extreme northern to the southern portion of the State. The great mass of the production continues in the southeastern portion of the State. Operations were conducted in the counties of Humboldt, Shasta, Tehama, Glenn,

Colusa, Butte, Napa, Bernardino, Santa Cruz, Madera, Fresno, Kings, Kern, Santa Barbara, Santa Clara, Ventura, Los Angeles, Orange and San Mateo counties. Of the total output Kern county produced nearly 70 per cent, Los Angeles county 15 per cent, leaving 15 per cent for the remainder.

The only new pool opened up during the year was in the southern part of Santa Clara county, near Sargent station, where a producing sand was found at about 800 feet, producing at the rate of eighty barrels per day. Operations were quite active in the locality of Half Moon Bay in San Mateo county. So far the operations in the locality have proven the existence of a limited quantity of superior petroleum. A small refinery has been recently erected at Half Moon Bay.

The Coalinga Field.—This field, in Fresno county, has been extended on the south and west and will likely prove to be one of the most productive in the State. There are four different varieties of oil produced in this locality, ranging from 11° to 40° Beaume in gravity. The oils ranging from 11 to 20° gravity are found in what is known as the "West Side Extension" of the field and the developed territory covers several sections. In the northeast end of the field oils are found ranging from 20 to 24, and one particular locality produces an oil of 28 gravity, which is suitable for refining. The petroleum from the old Coalinga district, which has been producing since 1897, is of the highest gravity and is used mostly for gas purposes. The Coalinga oils are distinguished by lower viscosity and a greater freedom from sand and water than those produced at other points in the San Joaquin valley.

The Kern River Oil Field.—This field, near Bakersfield, which so far has been the largest producing locality in the State, has not been extended during the past year. Operations have been slack by reason of the low market and the lack of transportation facilities. The most active operations are those of companies which have made contracts for their output with storage companies. The Pacific Coast Oil company has a storage capacity of 3,000,000 barrels in Kern county. The Associated Oil company having been made up of numerous petroleum companies, carries a large amount of stock and controls some of the best producing territory in this country.

In the Sunset field, Kern county, operations have been quiet on account of the lack of transportation for the production. Several companies operating between McKittrick and Sunset have found good production and the "Midway Field," as this locality is known locally, will probably develop into an important factor of the situation. The locality near the line between San Luis Obispo county and Kern county looks promising also as a producing field, a well that was drilled to a depth of 150 feet having found a good showing of 22° gravity oil.

The McKittrick Field.—In this field, in Kern county, on the west side of the San Joaquin valley, the most notable development was the bringing in of the well on what is

known as the "Shamrock Property," which produced from 800 to 900 barrels a day from a moderate depth, the oil being 19 gravity. The drilling in this field during 1902 has all been within developed lines, and a considerable increase in the production has taken place.

Santa Barbara County.—This county is the field of active operations. In addition to the Western Union property on the Los Alamos creek, which has been operated for several years, the Union Oil company has found a good well, near Lompoc, which is said to be capable of making 200 barrels a day. This is five or six miles from the Western Union property in a southwesterly direction. Large amounts of land are now held in this vicinity by the Union Oil company, and there will probably be considerable work done by them, as the petroleum is convenient to water transportation and there is a considerable demand for oil in the Hawaiian Islands, where the Union Oil company has established a tankage station, to which it is running tank steamers. Northwest of the Western Union Oil company property the Pinal Oil company developed a well in a regular formation at a depth of something like 1,600 feet, which produces oil 26° to 28° gravity. The Summerland field in this county has declined in production and operations have not been active.

Ventura county.—Drilling continues in a small way in Ventura county along Santa Clara valley of the south. The oil in this locality is of a gravity ranging from 16° to 35°, the latter oil being produced mostly in the wells of the Pacific Coast Oil Co. on Pico canyon, just over the Los Angeles county line.

Orange county.—The developments in Orange county have been extensive. Excellent wells have been found by the Santa Fe Railway at Fullerton, the Murphy Oil Co. at Brea canyon, and others. Some of the wells reach a depth of 2,400 feet, the production in such cases reaching as high as 1,000 barrels per day per well. Much of the oil produced at Fullerton and Whittier, lying just west, is a good quality for refining, and the demand has been such as to afford a good price for it.

Los Angeles county.—In the local field of Los Angeles operations have not been sufficient to supply the local demand for local fuel purposes, and a pipe line is now carrying oil from Whittier field into Los Angeles to make up the deficiency.

Refineries.—During the year the number of refineries in the State increased from eleven to thirty-three; most of these installations were small and designed more particularly for the production of asphalt from the heavy oils, which afford a yield of from 40 per cent to 50 per cent of this material. The distillates obtained in this way are used largely for domestic fuel and gas-making purposes, and, to a slight extent, for spraying fruit trees. The largest installation for refining California oils is that of the Pacific Coast Oil Co. at Point Richmond, near San Francisco. This concern will have a very large capacity and will handle mostly the lighter oils from the Southern part of the State, which will be conveyed to it by steamer from southern ports.

Transportation.—The problem of transportation of the California oil field has not been fully solved. The oil development of the State has been much retarded by the lack of facilities for getting the oil to market. Most of the production is within reach of the railways by short pipe lines, but there has been a deficiency of cars to meet the demands. Consumers have hesitated to adopt oil as fuel for the rea-



son of the uncertainty of getting a supply when needed.

The Pacific Coast Oil Co. is constructing a pipe line from the Kern river field to its refinery at Point Richmond, on San Francisco bay, which, eventually, will have branches to the important oil-producing localities in the San Joaquin valley. A branch is now in process of construction to the Coalinga field. The main pipe line will be 278 miles in length with ten pumping stations, and the oil will be heated to permit its easy pumping. The completion and operation of this pipe line is a matter of very great importance to the industry of the State. A railway chiefly for the transportation of crude oil is projected from the Sunset field to tide water at Port Harford, at the close of 1902, but little progress has been made toward its construction.

The chief use of California petroleum is as fuel and the market for it in this way has gradually extended during the past year. Tankage supply stations have been established in the Hawaiian Islands and large tank steamers are now running to the islands from San Francisco and southern ports. Large supply stations are also being installed at various points along the Coast as far north as Washington, and these will be supplied by the railways or by the ocean transit, as will be most convenient. A distressing accident to the steamer Progreso, on which an explosion occurred from oil vapor while in the course of repairs at San Francisco, causing serious loss of life, created agitation in favor of legislation limiting the fire test of oil to be used as fuel. It was purposed to limit the fire test to 150 degrees, a point which would exclude much of the oil produced in the southern part of the State. The legislation failed. The use of oil generally as fuel has been heretofore attended with very little loss of either life or property. The railways of California are adopting the oil as fuel as rapidly as possible. The Southern Pacific Railway has established a large amount of tankage on its line at different points for the purpose of storing the oil. Both the Southern Pacific and Atchison, Topeka & Santa Fe Railways are the owners of tracts of oil land from which part of their supply is drawn.

The price of California oil during the past year has ruled low, but some advance took place during the close of the year. Large contracts for the delivery of oil, however, were made at the rate of 20 cents a barrel at the wells for a period of five years, this price applying to the heavier oils of the Kern River and McKittrick field; lighter oils produced in the southern part of the State have commanded as high as \$1 and \$1.20 a barrel, where the quality was such as to permit refining into illuminating oils. The use of the California heavy oils for road purposes is increasing as its beneficial effect is being more generally recognized.

#### Controlling Interest in Coalinga Property for Sale Cheap.

The land department is authorized to negotiate a sale of a controlling interest in a developed property in the Coalinga field at a price that makes it a splendid bargain. This stock is held in the East and the owners of it are desirous of quitting the oil business entirely. This is a rare offer. Address the land department.

The PACIFIC OIL REPORTER is the only exclusive oil paper on the Pacific Coast. More than that it is the only weekly paper in the United States devoted EXCLUSIVELY to the oil industry.

#### Alleged Infringement of Patent for Oiling Roads.

The recent dismissal, on plaintiff's motion of the action brought in the United States District Court, by the California Dustless Roads company against the county of Los Angeles, because of defendant's alleged infringement of plaintiff's patent rights covering the making and maintenance of roads with crude oil, appears to have been misconstrued in some quarters, resulting in the assumption that the county had won a victory and that a judicial decree relative to the validity of the patent under which the company operates had been rendered. As a matter of fact, neither the California Dustless Roads company nor the county has won a victory, for there has been not the slightest judicial determination of the merits of the case.

The facts relative to the litigation between the company and the county are briefly these: Some time ago the company brought suit against the county for the purpose of enforcing its rights as licensee of United States patent No. 602,023. To the company's complaint the county filed a demurrer, which in due time was argued. Prior to the court's delivering a decision on the demurrer, counsel for the company moved a dismissal, without prejudice, of the action, which motion was granted, leaving the county and the company in exactly the same legal status they occupied before the filing of the complaint. The motion to dismiss had no relation at all to the merits of the case brought, but was dictated by counsel's desire to avoid a contest over certain purely technical features. The action dismissed (on plaintiff's own motion) was one in law; counsel for the complaining company deemed an action in equity less open to technical objections and just as adequate for the determination of the complainant's legal rights. An action in equity has been brought against Long Beach, and energetic measures will be taken against all individuals, corporations and communities that persist in what the California Dustless Roads company deems a violation of its legal rights.

The PACIFIC OIL REPORTER \$2.50 per year.

#### Asphalt Company Sued.

A suit was filed last Friday by the Mercantile Trust Co. of New York against the old Alcatraz company, that was incorporated under the laws of West Virginia, and whose principal place of business and plant was in that county, says the Santa Barbara "Press." The suit is instituted to get possession of the company's holdings in that county, which were given to secure a \$400,000 first mortgage bond issued in July, 1899, the bonds to run for forty years. The interest, which was made payable semi-annually, has not been paid for two years, which default gives the plaintiff company holding the bonds the right to foreclose. Apparently the case will prove a complicated one as the Alcatraz company was absorbed by the asphalt trust and the latter has collapsed, and it is not certain just who are the defendants. The complaint names as defendants the Alcatraz company, John Doe, Richard Roe, James White, William Black, Henry Blue, Jack Green, Jane Gray, Minnie Brown, Blue & Co., White & Co. and Brown & Co. Morrison & Cope are attorneys for the plaintiff.

#### Crude Oil as a Gold Saver.

An important use to which crude petroleum has been applied is in saving the fine gold which is generally lost from stamp mills. E. P. Finlay, a chemist of Fort Collins, Col., says:

"The water in the main vat is kept at a certain level by means of an automatic valve, which also furnishes an outlet for the coarse sand and gravel. At the head of this tank oil flows onto the water, over a blanket and into a second vat, from which it is automatically returned to the head of the first tank, and in this way the oil is kept moving continuously and evenly over the surface of the water.

"The slime to be treated is run over a set of dividing bars into the main vat and the coarse matter falls to the bottom, passing out through the automatic valve, while the oil, which acts as a precipitant, gathers the fine gold and deposits it on the blanket, returning then to the head of the machine to be used over and over again. The loss of oil is estimated at less than 5 cents per cubic yard of placer gravel."



#### We Build Galvanized Iron Tanks

For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank. Being situated near the Coalinga fields, we are in a position to make extremely low prices. We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

**KUTNER, GOLDSTEIN CO.**  
HANFORD



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### Alameda.

Street Superintendent Frodden has had the barrier removed from the north side of Santa Clara avenue, between Park and Oak streets, which was recently given a soaking of crude oil. Mr. Frodden states that the experiment has proven satisfactory and that the portion of the street mentioned is in excellent condition. The south side of the street will not be oiled until next year.—Alameda Encinal.

#### Kern.

The Pittsburg Oil company has sent out notices to stockholders that dividend

Judge Bennett has given judgment for the plaintiff in the suit of the Associated Oil company versus the Tunnel Oil company et. al. The judgment was given against the Tunnel Oil company by default and dismissed as to the other defendants on motion of the plaintiff's attorney, D. M. Adams.

The Webster Iron Works of Bakersfield have purchased the Occidental and Kern County Machine Shops at Sunset and have combined the two, locating them at the Occidental property. A lot of new machinery is being installed at the plant. The shops are to be en-

attended an annual meeting of the stockholders at Nevada City. At the meeting Mr. Robb submitted a report of the operations of the company. At present the fourteenth well is being drilled. An output of 35,000 barrels a month is now being handled. The property is located on 30, 28-28

The big pipe-line of the Standard continues to pour its oil into the tanks at Point Richmond and one cannot but smile in recalling the predictions of the newspapers which should have known better and which in advance proclaimed that the line was an ignominious failure. If the prophets had stopped to consider the methods of the Standard, they would have discovered that that corporation is not given to experimenting, and that it makes no failures where \$3,000,000 are involved.—Californian.

The Fulton at Sunset has gone completely through the first sand, and is now in 200 feet of a second and very

President John M. Wright of the Fulton spent yesterday at Sunset, inspecting the property of the company. The company is doing very well, but the casing in wells Nos. 1 and 2 collapsed some time since owing to the heavy pressure of gas, and is now being replaced by drive-pipe. This experience has taught the company one very costly lesson, viz: that casing can not be used in this portion of the field and hereafter drive-pipe will be used exclusively. It will no doubt be heeded by other operators. Wells No. 3 and 4 are finished, No. 5 is drilling and No. 6 is just rigged up to commence work. Two crews are at work on the property at present. The finding of the second oil sand has proved a great thing for the company and the wells are considered certain to be large producers.—Californian.

#### Los Angeles.

The Griffiths-Munson Briquette com-



A General View of the Kern River Field.

No. 7 of 2½ cents a share will be paid on and after October 1st.

The annual meeting of the stockholders of the Kern Oil company will be held in Bakersfield on the 12th inst.

W. E. Knowles, president of the West Shore Oil company, from Berkeley, visited the Kern River field this week.

William E. Leroy has resigned his position as manager for the W. T. McFie Supply company on account of ill-health. William Feniman has been appointed to the position vacated by Mr. Leroy and Edward Kelumeier will look after the field sales in the future.

The suit brought some months ago by the Reed Crude Oil company against N. Clark & Sons, a Los Angeles corporation, for \$25,000 damages for the alleged failure of the defendant to keep a contract for the purchase of oil, was dismissed on Monday by mutual consent.

The Gould Central, a McKittrick company, has made a final proof before the Visalia land office on two claims in the McKittrick field; one on the S½ of the NE¼ and N½ of the SE¼ of 12, 29-20, and the other on the NE¼ of 18, 29-21. The property is located near the outskirts of the field.

C. Hamilton Ritchie of the Southwestern Refining company and the Potomac Oil company, has just returned from Los Angeles and reports that the Potomac will begin work at once upon ten new wells on its property at Kern River. The refinery is rapidly being made ready for work.

larged as business picks up in the Sunset field.

District Engineer Henderson of Stockton is now at Sunset, where he has a force of surveyors setting grade stakes for the extension of the Sunset road. The extension will be about two miles long and will reach the Maricopa Oil company's property. The grading will be done by the company's own outfit and work will begin at an early date.

Superintendent Robb of the Nevada's holding in the Kern River fields recently

rich oil sand. This sand is one never before reached by any company operating in that field. The well now drilling is expected to be one of the best in the field and the discovery of this second rich oil sand may have a very important bearing upon the future of the Sunset district. The operators in the field have hitherto been content with reaching the first sands owing to the difficulties encountered in drilling further. The Fulton may be termed the pioneer in this respect.

pany has incorporated with a capital stock of \$100,000, of which \$53,400 has been subscribed. The directors are: M. L. Wicks, E. J. Griffiths, A. B. Nolton, G. Geely King and C. M. Stimson, all of Los Angeles.

#### Summerland.

Frank Olds has gone to Bakersfield. He will work tool dressing for Perry Ogan.

Thursday the stockholders of the Guarantee Oil company received notice from the directors that a meeting will

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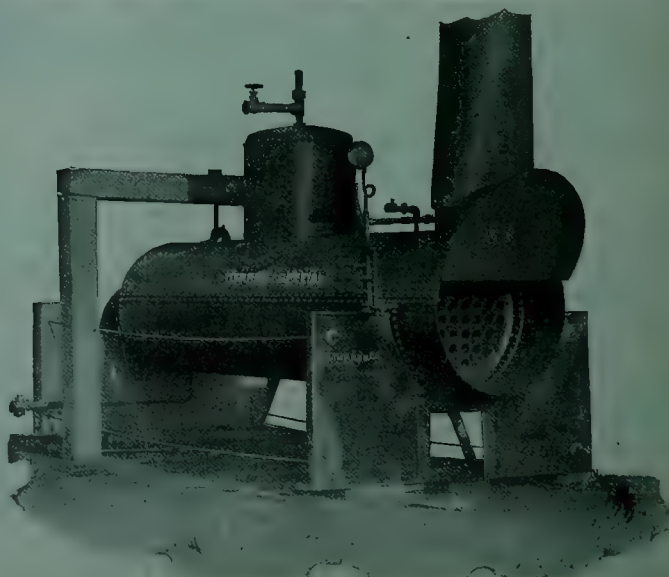
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be held for the purpose of surrendering the charter.

Eltie Opple has been at work the past week, fishing for three strings of tools lost in one of the wells of the Columbian Oil and Asphalt company. At last accounts he had grappled with the tools, which are fastened together and lie at a depth of 1,100 feet.

Wednesday the Eureka plant was sold under an attachment by the Santa Barbara Oil and Mining company to satisfy a claim of \$1,500. Manager John Bryson, acting for the Santa Barbara company, bid the plant in for \$925. J. F. Miller bought the engine-house.

#### Santa Barbara.

Considerable speculation was caused last evening by the sudden appearance in the harbor of three large ships, all in a bunch. They proved to be oil boats just arrived from Honolulu, and had put in here for inspection by the quarantine officer, Dr. Stoddard. The boats were the Santa Paula, Captain Perry, carrying eight men; the Fulton, Captain Briggmann, eighteen men, and the Whittier, Captain McDonald, twenty-six men. Dr. Stoddard gave the masters a clean bill of health and they cleared some time during the night for Ventura, where they will load for a return trip.—Santa Barbara Press, 29th.

#### Ventura.

The steamer Whittier, towing the barkentine Fullerton and barge Santa Paula, sailed Thursday from Ventura for Honolulu via San Francisco with 35,000 barrels of Ventura county crude oil.

#### Whittier.

About midnight Wednesday night fire broke out in the oil field, the tanks of the Warner Oil company having caught fire from a lantern carried onto one of them by the pumper, destroying the two 1,000-barrel tanks and burning the derrick of the new well, No. 7, as well as a string of tubing and some tools. No. 7 came in only a week ago and was very gassy, spouting 100 feet above the derrick on Saturday night. At that time the forty-foot bailer was in the hole and it was thrown to the top of the derrick with such force as to nearly knock the crown block off. The men have been working on the well during daylight only, so were not on the ground. There was more or less water in the bottom of both tanks on top of which was three or four feet of oil. Some of this was drawn off but a part burned and when the water was reached boiled over the burning tank and ran down the canyon, setting fire to No. 7 derrick, which was saturated with oil. The rig soon burned to the ground and a string of tubing standing in it was a wreck. The total loss is placed at about \$5,000. It is not thought that any injury was done to the well, which was being packed with sand.

#### Zephyrs From the Oil City "Blizzard."

Self-conceit is not wisdom.

"Big guns" sometimes have small calibres.

As the river falls, the hopes of the fisherman rise.

The straw hat dies hard. Next summer it will be dyed over.

It is easier to be a clam than a pearl oyster, but you are not nearly so much appreciated.

How could a man with as many wives as the Sultan of Turkey expect to keep out of trouble?

The Shah of Persia is reported to have put away 364 of his wives. Probably clearing out preparatory to a fall opening.

Poker chips are now being manufactured from condensed milk. The man

who runs the 'joint' will continue gathering the cream.

Someone remarks, sympathetically, that after suffering from three attacks of Shamrockitis, it would have been too bad for Sir Thomas to have undergone appendicitis.

A New Jersey man, who can see without glasses, attributes his fine health to the fact that he has never drank water since he was a boy. But he couldn't have drank cider all that time.

#### Fake Out of Whole Cloth.

The salt water hoax which represented the Standard Oil company as pumping salt water from the Gulf of Mexico into the oil wells at Beaumont for the purpose of ruining them and then buying them in dirt cheap, originated with the Fort Worth (Tex.) Telegram. That paper not only originated the fake out of whole cloth, but has since had the audacity to glory in the achievement. In the Pennsylvania oil regions nobody took any stock in the silly story. But not so in other sections of the country unfamiliar with the petroleum industry. Strange as it may seem, many newspapers made it the subject of editorial comment, accepting it as true, without the least effort at verification. A telegram to either of the Beaumont daily papers would have advised them at once of its utter mendacity and saved them from being written down as ignoramuses, if not worse. Anybody who knows anything about the industry knows that the pipe lines are not connected with the casing heads of the oil wells, but with the tanks of the producers. Admitting that salt water might be pumped from the gulf to the Beaumont field, it would have to go first into the storage tanks before it could by any manner of means get into the wells. No sillier yarn was ever invented.—Titusville Herald.

#### The Standard May Have Competitor.

A dispatch from Richmond, Indiana says: "The Standard Oil company, which had practical control of the oil-producing territory of Indiana and Ohio for several years, is threatened with a formidable competitor, one that has already made a successful bid for much valuable oil land in these two states. The new opponent is the New York Gas, Coal and Supply company, which is said to have a capital of \$20,000,000.

Their representative has been here for several weeks looking over the ground, and he has succeeded in getting control of the property of a large number of minor companies doing business in this section. Competition is welcomed and on this account the New York company has made favorable headway.

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#### Pioneer Effort to Find Oil.

A gentleman named M. B. Smith visited the office of county recorder Ira Chrisman recently to make inquiry regarding a corporation which was organized in this county in 1865 under the laws of this state to bore for oil on the west side. The name of the corporation was the National Petroleum Oil company. Mr. Smith exhibited a certificate of stock for 100 shares of the par value of \$5 each, the certificate bearing the U. S. internal war revenue stamp. The date of the organization of the corporation was April 28, 1865. J. O. Lovejoy, the well known real estate dealer of Tulare, was, it is said, also a stockholder. Mr. Smith left for Tulare to interview the gentleman mentioned.

Whether the corporation that was formed at that time ever prosecuted a diligent search for oil in the west side country Mr. Smith did not state. That oil was believed to have existed there as early as 1865 is testified to by early settlers and several claims were filed for land in that territory about the year mentioned. That a corporation was ever formed, however, with the express purpose of boring for the fluid at that time is said not to be generally known.—Visalia Times.

#### Drive-Pipe for Sale.

A string of ten-inch drive-pipe, about 425 feet, for sale. This pipe is at Coalinga, has been used but is being re-threaded and is practically as good as new. Offered at a considerable discount from price of new pipe. Address, this office.

A pretty, rosy-cheeked country girl entered one of our large department stores one day this week. It was bargain day, and the crowd was greater than usual. She had wandered about from floor to floor a little bewildered.

Seeing her, a floor-walker said: "Is anybody waiting on you?"

"Yes sir," said the girl, blushing to the roots of her flaxen hair, "he's outside; he wouldn't come in."—Philadelphia Ledger.

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### Land Owners Organize a Unique Company.

A rather unique corporation has been formed in this city by oil men in the Midway field. There are thirty-seven persons interested but the names of only seven appear in the papers filed in the county clerk's office. All of these with one exception are residents of Bakersfield and vicinity, says the Bakersfield "Californian."

The corporation is known as the Section Twenty-five Oil company and is composed of the owners of section 25 in the Midway field, on which are located a number of the best properties in that district, such as the Altoona, Midway, Mascot, Sunset and other companies. The object in incorporation is simply to avoid the continual annoyance to the company in transfers of property. The number of sales of small pieces of the land made enormously expensive abstracts necessary and were a source of continual annoyance, and the company is intended to do away with this. Its only function will be to acquire title to the land and hold it in its name, leasing it to the operators and, if necessary, defend title in the courts and transact any legal business as a corporation, thus doing away with the need for getting individual signatures to so many papers. As some of the owners of the lands are in the East or even in Europe, the advantage of this can be readily perceived.

The directors and incorporators named are: Timothy Spellacy, T. E. Sullivan, Thomas O'Brien, J. F. Dooley and C. A. Barlow of Bakersfield; G. W. Parish of Pyleme, Kern county, and H. P. Dover, San Pablo, Contra Costa county. The capital stock is \$40,000, par value of shares, \$1.

The objects of the corporation are set forth as follows:

"The application for a United States patent for the lands belonging to the said corporation; the defense of suits at law or otherwise concerning said lands; bringing such suits as may be necessary to clear the title to the said land, selling or leasing said land or any part thereof, with power to raise such money as may be necessary for above purposes and no other."

It will thus be seen that the company is expressly forbidden to drill any well or operate or develop the property in any way.

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### Hanford Has a New Asphaltum Plant.

Hanford is a growing little city and a prosperous one also, as is evidenced by the development of several new and valuable industries during the past few months. The Sentinel has always taken an interest in urging and advocating these movements, and the last one, that of the establishment of an asphaltum plant by the Worswick Brothers, has been spoken of at several different times. Now the new firm has its plant in working order and can attend to any and all the work that is referred to them, and they solicit the patronage of all who desire work of the character mentioned.

The plant is situated just east of the Rosenberg Brothers & Co.'s establishment, and has the latest improved machinery for making walk, flooring and roofing material. It is so arranged that the sand is run through two pipes by means of an auger in each, and while going through these pipes the sand is heated to a temperature of 350 degrees. From this part it drops into an elevator and is dumped into a large vat. This vat is immediately above the mixing machine, and when everything is in readiness for putting the materials together a quantity of the heated sand is let into the mixer. Then some lime dust is thoroughly mixed with the sand, and then the asphaltum, which has been heated to 325 degrees temperature, is placed in the vat with the sand and limestone, and the three are mixed together for a few minutes and then poured into a wagon and hauled to the place of usage. In getting the material ready for the walk or floor there is 20 per cent of lime dust, 15 per cent of asphaltum and 65 per cent of sand used.

Will Worswick stated that they expected to employ about twelve or fifteen men when running in full blast and with this force can lay about 3,000 square feet of walk or flooring per day. After having laid a small floor at the plant, the firm will put the flooring in the new carriage and wagon department of Charles Fleming's establishment on East Front street. —Hanford Sentinel.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

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## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, September 30th:

ALMA.			
300 at	1 35.....	\$ 405 00	
APOLLO.			
1,000 at	40.....	400 00	
BAY CITY OIL.			
500 at	08.....	40 00	
CARIBOU.			
300 at	1 10.....	330 00	
600 at	1 07½.....	645 00	
200 at	1 05.....	210 00	
22 at	1 00.....	22 00	
CHICAGO CRUDE.			
1,000 at	21.....	210 00	
ESPERANZA.			
500 at	1 30.....	650 00	
100 at	1 32½ (C).....	132 50	
FOUR.			
300 at	68.....	204 00	
HANFORD.			
1 at	136 00.....	136 00	
4 at	140 00.....	560 00	
5 at	140 00 (B 4).....	700 00	
HOME OIL.			
200 at	87½ (S 30).....	175 00	
500 at	90.....	450 00	
300 at	90 (S 30).....	270 00	
400 at	92½.....	370 00	
200 at	92½ (S 30).....	185 00	
300 at	95.....	285 00	
1,200 at	97½.....	1,170 00	
325 at	1 00.....	325 00	
200 at	1 02½.....	205 00	
300 at	1 05.....	315 00	
100 at	1 07½.....	107 50	
400 at	1 10.....	440 00	
100 at	1 12½.....	112 50	
200 at	1 15.....	230 00	
10 at	1 25.....	12 50	
INDEPENDENCE.			
500 at	18.....	90 00	
KERN.			
600 at	5 00.....	3,000 00	
MONTE CRISTO.			
100 at	74.....	74 00	
200 at	73.....	146 00	
300 at	72.....	216 00	
NEVADA CO.			
500 at	36.....	180 00	
OCCIDENTAL OIL.			
100 at	18.....	18 00	
1,000 at	19.....	190 00	
OIL CITY PETROLEUM.			
1,000 at	29.....	290 00	
PEERLESS.			
50 at	14 00 (S 3).....	700 00	
REED CRUDE.			
2,000 at	41.....	820 00	
2,000 at	42.....	840 00	
SOVEREIGN.			
800 at	40.....	320 00	
SUPERIOR.			
500 at	07.....	35 00	
STERLING.			
15 at	2 90.....	43 50	
100 at	2 85.....	285 00	

19,332 Shares Amount \$16,544.50

FISHER R. THEATRE CO.

400 at 2 75..... 1,100 00

400 Shares Amount, \$1,100

The monthly record of sales since January 1, 1903, is as follows:

Shares.	Value.
January.....	267,019 \$255,202
February.....	322,443 219,358
March.....	199,908 151,982
April.....	236,268 115,571
May.....	401,454 154,386
June.....	154,720 117,928
July.....	74,594 71,890
August.....	181,478 119,231

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		
Apollo.....	.39	.46
Asso. Oil Co Stk. Tr.		
Certificates.....	.22	
Aztec.....		
Bay City.....		

Bear Flag.....		
California Standard.....		
Caribou.....	1.00	1.10
Central Point Con.....	.65	
Chicago Crude.....	.20	
Clairemont.....		
Esperanza.....	1.30	
Fauna.....		
Four.....	.68	
Fulton.....	3.00	
Giant.....		
Hanford.....	140.00	
Home.....	1.10	1.20
Homestake.....		
Imperial.....	18.00	
Independence.....	.17	.18
Junction.....		
Kern.....	4.75	5.37½
Kern River.....	10.00	15.00
Lion.....	.03	.04
Monarch of Arizona.....	.55	
Maricopa.....	.13	
McKittrick.....		
Monte Cristo.....	.72	
Nevada.....	.37	
Occidental of West Va.....	.17	.19
Oil City Petroleum.....	.28	.29
Peerless.....	14.00	
Petroleum Center.....		
Piedmont.....		
Pittsburg.....		
Reed Crude.....	.41	
S. F. & McKittrick.....	2.75	
San Joaquin O. & D.....		
Senator.....		
Shamrock.....		
Sovereign.....	.40	
Sterling.....	2.75	
Superior.....		
Thirty-three.....		
Toltec.....	.21	
Twenty-eight.....		
Union.....		
United Petroleum.....		
West Shore.....	2.90	
Western Petroleum.....		
Wolverine.....		

### Notice to Creditors.

Estate of William B. Winn, deceased. Notice is hereby given by the undersigned, executrix of the estate of William B. Winn, deceased, to the creditors of, and all persons having claims against, the said deceased, to exhibit them, with the necessary vouchers, within four months after the first publication of this notice to the said executrix at the office of William H. Waste, attorney-at-law, 906 Broadway, Oakland, Cal., which said office the undersigned selects as her place of business in all matters connected with the said estate of William B. Winn, deceased.

MARIA ROSA WINN, Executrix of the last will and testament of William B. Winn, deceased. Dated Oakland, September 28, 1903. WILLIAM H. WASTE, attorney for estate, Oakland, Cal.

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7:30 A. M.—BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.

9:30 A. M.—"THE CALIFORNIA LIMITED;" Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

9:30 A. M.—"VALLEY LIMITED;" Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

4:00 P. M.—"STOCKTON LOCAL;" Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

8:00 P. M.—"OVERLAND EXPRESS;" Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

\*Daily ? Mondays and Thursdays  
o Tuesdays and Fridays.

Personally Conducted Parties for Kansas City, Chicago and East leave on Overland Express Monday, Thursday and Saturday at 8:00 p. m. Ticket Offices, 641 Market Street and in Ferry Depot, San Francisco; and 1112 Broadway Oakland.

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Evanston - Wyoming

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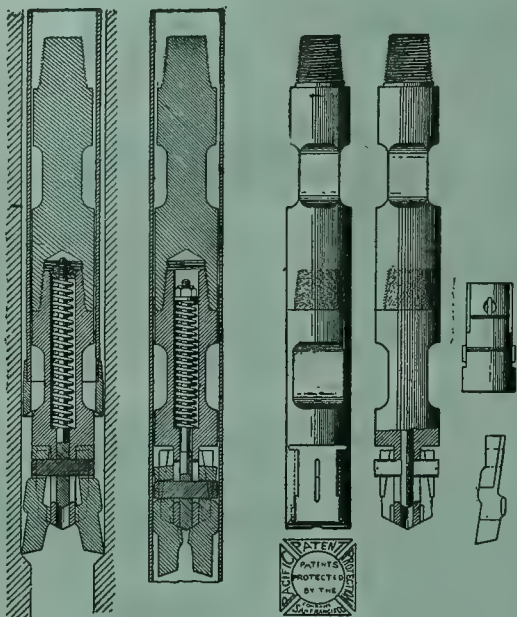
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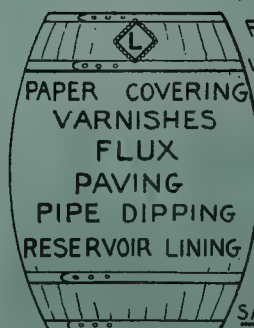
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Vol. 4. No. 49.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 10, 1903.

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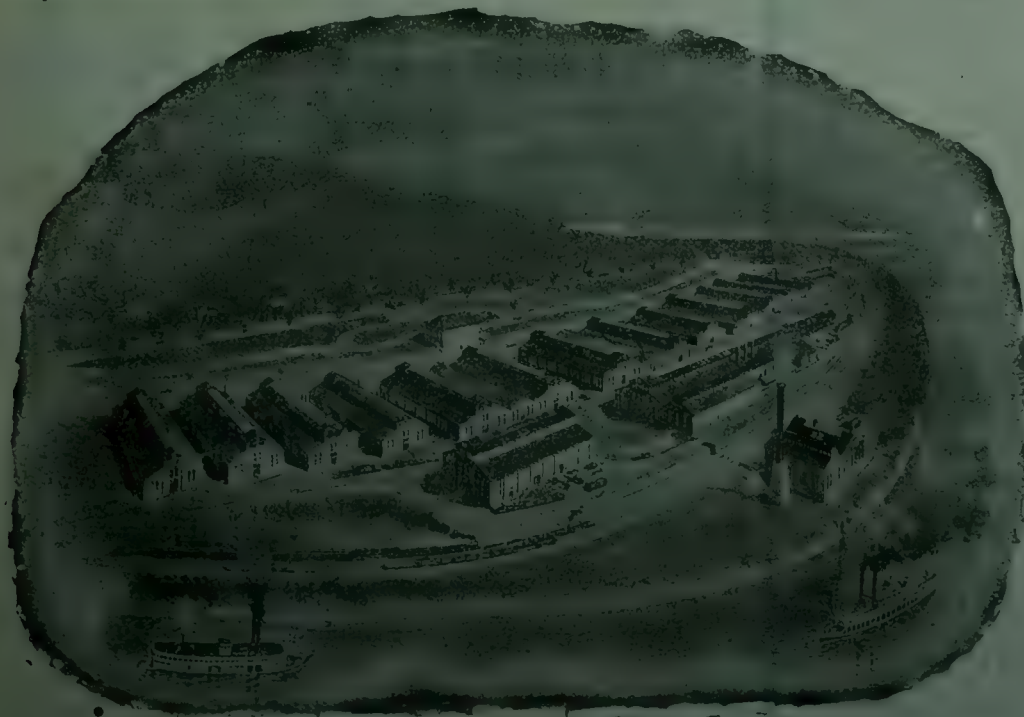
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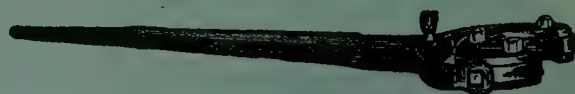
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# PACIFIC OIL REPORTER

Vol. 4. No. 49.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 10, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

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### OUR SPECIAL EDITION.

As heretofore announced, the PACIFIC OIL REPORTER will issue a special edition in the interest of the western Kern county fields about the last week of the present month. Mr. E. S. Eastman, who assisted Mr. Winn in getting out the special Wyoming edition, which our readers will remember was a great success, will visit the field next week and remain there until it is thoroughly canvassed. Give him your assistance.

### WHOLESALE LAND GRABBERS.

Elsewhere we print a special from Tacoma announcing the gobbling up of vast tracts of oil and coal lands in Alaska. While this wholesale covering up of valuable tracts of mineral lands is not sanctioned by any law on the statute books it is not expressly prohibited, and there are many subterfuges practiced that give color of legality to it. But in reality it is public plunder of the rankest sort. These associations of capitalists or moneyed corporations by mutual agreement or common consent divide the public domain among themselves and because of their wealth and influence, and oftentimes by intimidation and coercion, persuade the common individual to believe that the climate is too unhealthy and the tenure of life too uncertain for him to remain in the vicinity any longer than possible to make a safe retreat if he has been so bold as to "intrude."

These lands are "secured" in a manner something like this: A rich company or association of capitalists fit out an exploring expedition, which is usually in charge of some geologist styled an expert. This expedition is sent out in a ship or vessel to explore the bays, inlets and navigable rivers along the Alaskan coast. It is equipped with surveying instruments and an abundant supply of corner stakes and printed location notices. Whenever the geological expert finds a formation that indicates a possible deposit of oil, if some other expedition has not been there ahead of him, he sets his surveyors and stake drivers at work and proceeds to "locate" everything in sight that seems to suit his geological fancy. He knows and those who send out this plundering expedition know that

this thing is not legal, but so long as it is not direct violation of law and by common consent is allowed it will go on. After they have themselves located all they want, or all the other fellows have left, they proceed to pick out the most promising locations and begin development work. The chances are good that they will get oil. Then the newspapers in the states herald the word abroad that the great "Alaskan Consolidated Oil and Development company," owning 100,000 acres of "proven" oil territory producing fabulous quantities of "high-grade" oil is offering a "limited" quantity of its preferred stock for sale at the "ridiculously low price," etc., and of course Rube gets into the game with both feet. Oh, it's a cinch!

Then this same company proceeds to unload fifty or seventy-five thousand acres of its "best" lands to a dozen other wild-cat companies who likewise proceed to convince the "investing public" that they have the surest thing on the face of the earth because they adjoin the great "Alaskan Consolidated," etc. And thus the graft is worked and there seems to be no way to stop it. Barnum was right. The public loves to be humbugged, and this Alaskan oil proposition offers opportunities that would have induced Barnum to quit the circus business and engage in it.

The government should be induced to enact some kind of sensible legislation to protect these oil lands. That there is good oil territory in Alaska is no doubt true, but the manner by which these lands are confiscated is nothing short of highway robbery. The remoteness of the territory precludes investigation and verification of claims and statements. Any wild-cat company can claim as many thousand acres as suits its fancy and the public cannot prove it false though there may not be a word of truth in the claim.

These fake exploring expeditions are conceived by designing schemers to acquire, (confiscate is a better term) thousands of acres of oil lands for a mere trifle, or, in the event the thing does not pan out to suit the fancy when the drill is set to work, to unload, through the medium of wild-cat oil companies, on a patient, expectant public, a "sure thing" at a "fabulously low price."

Verily the oil schemer is a crafty individual. Watch out for him.

### DUNHAM PROCESS OF REFINING.

Some months ago the PACIFIC OIL REPORTER made brief mention of a new process of refining illuminating oil from the heavy crude oils of California invented and patented by F. H. Dunham of Los Angeles. The exclusive right to use this process has been secured by the Atlas Reduction company, of Los Angeles, whose secretary, Mr. Charles Udell, was a caller at this office during the week. Mr. Udell informs us that the invention of Mr. Dunham enables them to secure fully 50 per cent of illuminants from the heaviest crude oils of the Los Angeles field. Heretofore refiners have been content to get 10 to 15 per cent from these heavy oils and 20 per cent was considered about the highest percentage possible from even the lighter grades. The grade of kerosene which is obtained by the Dunham process of fractional distillation is

equal to the Eastern product, says Mr. Udell. The commercial importance of this process can be readily seen when it is learned that the Atlas refineries are now securing 50 per cent high grade kerosene from 12 to 14 gravity crude oil, oil that heretofore has been sold only for fuel and was considered almost worthless for refining except for asphaltum. To Mr. Udell we expressed our skepticism about securing 50 per cent kerosene from an oil that by chemical analysis is shown not to contain that much illuminating properties, but he answered by reasserting what he had said that the Atlas company was obtaining the proportion stated and there was no deception or mis-statement about it.

Mr. Dunham was for years the special tester for the Standard Oil company and has made the oil business a scientific study. He has done with the California oil what no other refiner has accomplished by producing a first-class white illuminating oil, sold under the name of "X Ray" and "Alba Crown" kerosene. It is claimed that it is as fine an oil as can be obtained on the market and stands the fire test equal to the best.

The discovery is a most important one to the oil industry, especially to the fields where heavy crude is produced, as the tendency will be to reduce the premium on so-called light oil and to raise the heavier oils to a better standard. It will not only increase the price of heavy oils but will open an important outlet for that class of product.

The residuum obtained from the heavy oils after taking out the kerosene is not asphaltum as is the case in other processes, but the extra amount of cooking to which the oil is subjected in the stills leaves only a coke, which Mr. Udell declares to be of a very superior grade and which commands a ready sale at a good figure.

### Personal Mention.

C. S. Young, well-known in the Kern River oil fields, being interested in oil properties there, has engaged in the newspaper business at Point Richmond. He is now part owner of the Richmond Terminal.

Harry W. Evans, of Bakersfield, oil fields representative of the American Steel and Wire company, was in the city Thursday.

Timothy Crowley, of the Pleasant Valley Farming company, visited the Coalinga oil fields this week. He confirms all the glowing reports coming from that field.

George I. Reed has resigned the editorial management of the National Oil Reporter. He is succeeded by Lowe Shearon.

Clark Alberti, the well-known newspaper man of San Diego, will succeed C. W. Vickery as secretary to Nathaniel Ellery, the State Commissioner of Highways, on November 1st.

W. J. Bruce, of Portland, Oregon, who is heavily interested in the Midway oil fields, is in the city this week.

### Stock Market.

Dullness has characterized the oil stock market the past week. The only feature has been the decline of Home from \$1.27 to 80 cents.



# Fuel Briquette Manufacture.

German Process and Machinery, by Frank H. Mason,  
U. S. Consul-General, Berlin.

Great interest is being shown in the manufacture of fuel briquettes in the United States from lignite coal and bituminous coal dust and screenings, and particularly on the Pacific Coast, where there are vast deposits of lignite coal and an unlimited supply of the necessary matrix or binder. In view of this we publish the following report from U. S. Consul General Mason, at Berlin, on the process and method of manufacture in Germany:

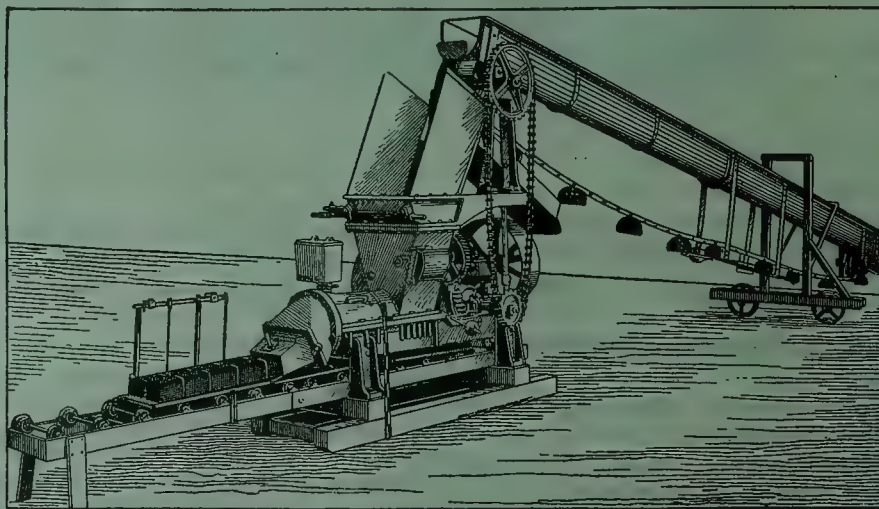
There were in operation in Germany at the close of 1900 eighty-nine manufactories of fuel briquettes, some of which—for example the "Hercules," the "Seven Planets" and the "Tiefbau," at Dalhausen, on the Ruhr—produce each more than 100,000 tons annually. Briquette works are divided in respect to the material employed into two general classes, viz., those which make briquettes from brown coal (lignite) or carbonized peat, with or without the addition of a bituminous matrix or binder, and, second, those which use as a basic material coal dust or slack—the waste of soft coal mines. Of the latter class, Messrs. Franz Haniel & Co., of Ruhrort on the Rhine, who have works at several points along the Rhine, are representatives. The great Gruhl establishment at Bruhl, the "Donatus" works at Lilllar, near Cologne, and the Thuringian Aktiengesellschaft, at Deuben, near Halle, are typical examples of factories which make briquettes from brown coal, which is abundant and cheap in many sections of Germany. In the last-named establishment no matrix or binder is used. The lignite is crushed, moistened with water to the consistency of mortar, then passed through the machine, which, by compression under heat, develops the bitumen in the material and renders the mass so plastic and adhesive that it molds rapidly into smooth glistening briquettes of a black or dark brown color, which are practically smokeless and leave after combustion a reddish-brown ash. All processes of this kind are based upon the fact that lignite is a vegetable coal of more recent formation, and, therefore, less perfectly carbonized structure than anthracite or bituminous coals, has lower caloric value, and requires to be compressed and further carbonized by artificial means. Turf or peat is a still more recent formation, and requires proportionately more artificial preparation to produce a high-class fuel; hence the several more or less successful patented processes for carbonizing peat into so-called peat coal, an artificial product which can be either used in irregular lumps or molded into briquettes.

From what has been previously reported on this subject, it will be apparent that in all that concerns the manufacture of briquettes from brown coal, or from the slack and waste of bituminous coal mines, the processes employed in France and Germany have long passed the experimental stage and become a standard commercial industry. If Americans are really interested in the subject, there is no need that they should risk any large sums of money in uncertain experiments. They have only to study the machinery and methods employed in European countries, compare their

crude materials with those found and used here, and they can thus start at the point of technical knowledge which Europeans have reached after many years of experience. When, some ten years ago, the attention of American iron makers was called to the German system of making blast furnace coke in retort ovens, which saves the valuable volatile elements of the coal, it was thought worth while by certain of them to bring over two carloads of Connellsville coal to be coked as a test by the German process. The complete success of that experiment decided the introduction of the standard German type of coking oven into the United States.

Something similar, it would seem, might profitably be done with the materials which Americans have not yet succeeded in converting into satisfactory briquettes. There are

nal bulk, and delivered at the end of the machine in cubes of any desired size, which are first dried until they lose about two-thirds of their water, when the drying process is generally completed by artificial means. The principle upon which this machine operates depends upon the fact that peat in its natural condition contains about 80 per cent of water, of which four-fifths is held in mechanical suspension between the hairy vegetable fibers of which the peat is composed, while the remaining one-fifth is contained in the fibers themselves, each of which is a minute hollow tube, wherein water is held by capillary attraction. In the ordinary process of drying peat, the material is cut into cubes and laid in the air, where most of the water held between the fibers soon leaches out by gravity or evaporates. That which is contained inside the fibers is much more difficult to expel, and for this purpose the fibers must be cut, torn and compressed until they give up their liquid contents. Nine cubic feet of raw peat is thus condensed by the machine into 6 cubic feet of prepared peat, which still contains about 40 per cent of water, and this is further dried and compressed into 1 cubic foot of black, dry, fossil-vegetable stone, of about 1.5 specific gravity, which can be sawn, planed and even polished like cannel coal.



Machine for Making Briquettes from Peat.

experienced engineers and a dozen manufacturers of briquette-making machinery who would gladly cooperate in these tests, and would furnish machinery adapted to working the material thus technically defined. Upon a basis of such tests, plans and estimates could be obtained for the erection of plants in the United States with specified daily capacity.

Of the peat-briquette making processes actually employed, the value of which has been fully established by experience, one of the most interesting is that invented by Mr. C. Schlickeysen, of Rixdorf-Berlin, and practically operated there, at Munich, and other places. The peculiar feature of this system is that by it black, dense briquettes of high caloric value are made from peat without the application of heat—simply through the action of kneading and drying.

The accompanying illustration shows a machine of this type in operation, the raw turf coming up by an endless belt or elevator running in the long sloping trough which leads to the peat bed—for these machines are portable and are generally carried on temporary railway tracks, laid so as to enable the machine to follow the point of excavation as the peat bed is gradually exhausted. From the summit of the elevator, the raw material drops into the machine, where it is cut, torn, kneaded, and compressed into about two-thirds of its origi-

Turf briquettes ordinarily contain about 66 per cent of inflammable elements, the remainder being made up of inorganic ash and water. They are thus inferior as fuel to briquettes made from brown coal, which average 70 per cent or more of inflammable matter. Both represent in their present form the utmost that science has been able to do in utilizing inferior and otherwise almost worthless materials to supplement and eke out the insufficient coal supply of European countries.

There is in New England, New York, Michigan, Illinois, Wisconsin, Oregon and Washington vast beds of peat which have been thus far hardly explored. There are in the Dakotas and the gulf states large deposits of lignite and material midway in character between lignite and peat, and there are in all the coal-mining states enormous quantities of bituminous dust and anthracite culm, all which may, by the employment of modern machinery and processes, be added to the fuel supply of our country.

German briquette factories are divided, in respect to the crude material employed, into two general groups—those which make household briquettes from brown coal (lignite) or carbonized peat, and those which produce the so-called "industrial briquettes," using as basic material coal dust or "slack," the waste of bituminous coal mines.



1. Household briquettes, as made in Germany from brown coal, peat, and to a small extent from anthracite dust, are used for grates, heating stoves, cooking stoves, and ranges and constitute the principal household fuel of Berlin and other German cities. They are clean to touch, kindle readily, burn with a clear, full flame, and are cheaper in Berlin, ton for ton, than anthracite or good bituminous coal. They are made—largely from brown coal—in factories located mainly in Silesia, Saxony and the Rhine provinces, and united in a syndicate which controls the output, regulates the prices, and looks after the general welfare of the industry.

The illustration shows a miniature working model of a brown-coal briquette factory, which was exhibited by the Zeitz establishment at the recent exposition in Dusseldorf. It exhibits in condensed form the essential elements of such a plant—the machinery for pulverizing, elevating, drying and finally compressing the material into briquettes.

There are in Germany 439 brown-coal mines, which produced last year 44,211,902 tons of lignite, valued at \$46,042,500 or a little

manufacture, and from which the benzole and other valuable elements have been eliminated. Pitch of this quality costs in this country from \$10 to \$12 per metric ton. (1 metric ton=2,205 pounds.) The percentage of matrix necessary to be used varies greatly with the "fatness"—i. e., richness in bituminous elements of the coal itself. Slack from very fat coal will work into briquettes with an addition of 2 or 3 per cent of pitch, while leaner grades may require 6 to 8 or even 10 per cent, the latter proportion being sufficient, at the present cost of pitch, to render such coal unprofitable for briquette-making purposes. Briquettes made from bituminous slack, although not smokeless, are much more nearly so than ordinary bituminous coal. When burned in locomotives or any well-constructed boiler or other furnace with a good draft, they create only a thin, translucent mist, which contains relatively little soot, and is very different from the inky clouds that roll up from most factory chimneys where soft coal is shoveled indiscriminately into the furnaces. The one notable defect of such briquettes is that the mineral pitch which is used as a binder con-

whatever the market will take at prices which the syndicate managers consider equitable. Industrial briquettes are usually of a square or oblong form, convenient to be closely packed or built up into a wall, like bricks, whereby they greatly economize space as compared with raw coal. They range in weight from 3 to 10 pounds, and each bears the initials or trademark of the company by which it is produced so that in case of any defect in quality the inferior briquette can be readily traced to its source of production. When burned whole they are consumed slowly and give out a steady, moderate heat for a long time; when it is desired to quicken or intensify the flame, they are broken up, and in this condition are especially adapted to flue or tubular boilers, sugar evaporating, smelting and annealing furnaces, in glass manufacture, or in porcelain and cement factories, wherever, in fact, a fuel capable of producing a long, fierce flame is desirable. Their efficiency as locomotive fuel may be inferred from the fact that the state railways of Prussia, which used 130,000 tons of such fuel in 1889, bought from the syndicate 680,000 tons during the first nine months of 1902.

Anthracite coal is so sparingly produced in Germany that the use of hard-coal dust for briquette making is relatively unimportant. Experts, however, agree that with an admixture of from 4 to 8 per cent of matrix, the manufacture of anthracite briquettes, which will bear transportation by sea or land, in any climate, presents no technical difficulty.

As has been indicated in previous reports, the manufacture of coke and briquettes from peat or turf is still relatively in the experimental stage, although there are several factories in successful operation and another—largest of all—is just being put into operation at Königsberg, on the Baltic coast of East Prussia.

FRANK H. MASON,  
U. S. Consul-General, Berlin.

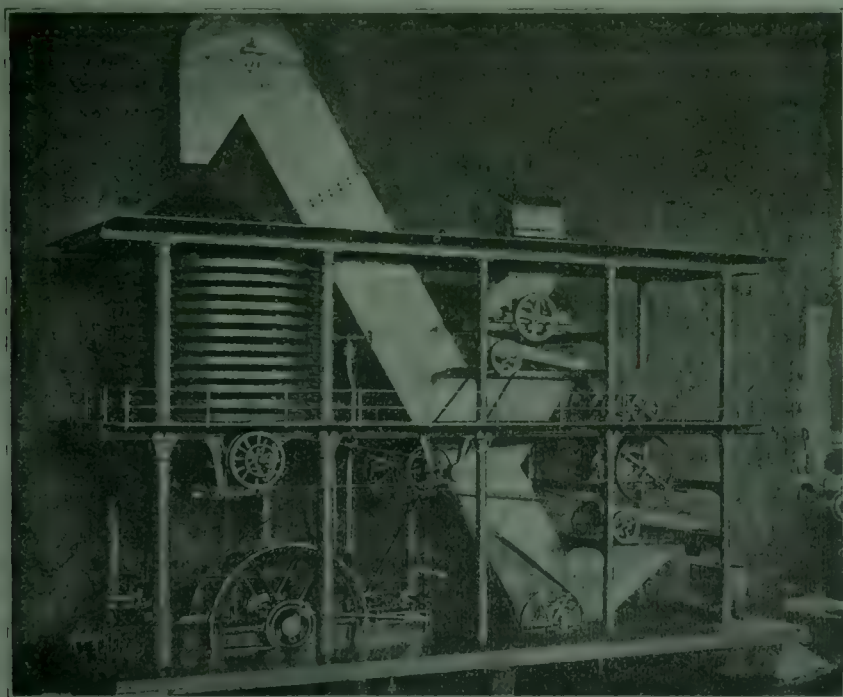
### Opposition to the Standard.

It is said that in the organization of the Union Oil and Refining company at Beaumont, Texas, the first step is taken toward establishing a big combine of independent oil interests in opposition to the Standard Oil company. Practically all of the independent oil refining interests of Texas are to be merged into the new company. The most notable exception to this programme is the J. M. Guffey Petroleum company, which operates large oil refineries at Port Arthur. The interests of the National Refining company, the Union Refining company and the Beaumont Refining company have been absorbed by the Union Oil and Refining company and negotiations are pending for obtaining control of the interests of other companies, which, when consummated, will make the Union Oil and Refining company a formidable competitor with the Standard in Texas business. In addition to the refining plants already acquired it is proposed by the United Oil and Refining company to immediately begin the construction of an immense oil refinery. It will be situated adjacent to the Spindletop oil field.

### Largest Tank in the World.

The Rio Bravo Oil company is building the largest storage tank in the world at Sour Lake, Texas. Its dimensions are 275x300 feet with 14-foot walls. When completed it will hold 1,000,000 barrels of oil.

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Working Model of a Brown-Coal (Lignite) Briquette Factory.

more than \$1 per ton. Of this whole number of mines, 181 have each from one to six briquette factories, in each of which from one to ten presses are employed. The whole brown-coal-briquette industry of Germany includes 286 factories, with a total of 691 presses. Statistics of the total yearly products are not accessible, but from the fact that a single press turns out from 50 to 90 tons per day, it will be readily inferred that the annual output is enormous. They are the standard household fuel throughout a large portion of this country, and are besides largely used for firing steam boilers, especially in cities where their cleanliness and freedom from smoke and dust are highly esteemed. The standard household briquette is about 8 inches in length, by 4 inches in width and 2 inches thick, and is retailed and delivered in Berlin at prices ranging from \$2 per 1,000 in summer to \$2.50 in winter.

2. Industrial briquettes are used in Germany for firing locomotives and other steam boilers, for smelting in reverberatory furnaces and for many other kinds of industrial heating. They are made of bituminous coal dust, held together by a matrix of mineral pitch—that is coal tar derived from retort coke, ovens or gas

tains more or less creosote; this renders dust and fumes from such fuel acrid and sometimes irritating to the skin when confined in a close, hot boiler room. Soft-coal briquettes are made from the dust and waste of mines, and, when the composition of the coal is such as to permit a low percentage of binder to be used, they are the cheapest and easiest kind of briquette to produce. They are made in machine presses more or less similar to the one shown in the illustration, which is a typical machine of the Zeitz pattern, with a capacity of 90 tons of briquettes per day.

The output of soft-coal briquettes in Western Germany is controlled by a syndicate called the Briquette Sale Syndicate of Dortmund, which includes among its members 31 factories, located in Westphalia and the Rhine provinces. These establishments employ, collectively, 112 machine presses of the Coufinhal type, besides one French machine of the Bourriez model and 3 so-called "egg-rollers," or machines which produce small, oval briquettes of egg size which are burned in certain kinds of tubular boilers. The syndicate claims a maximum annual capacity of 2,100,000 tons, and, as its official report shows, makes about three-fourths of that amount—



# California's Mineral Wealth.

## Abstract of Annual Report of State Mineralogist for Year 1902.

State Mineralogist Lewis E. Aubury reports the yield and value of mineral substances of California for 1902 as follows, per returns received at the State Mining Bureau, San Francisco, in answer to inquiries sent to producers:

Asphalt.....	34,511 tons	\$ 349,344
Bituminous Rock..	33,490 "	43,411
Borax-Boric Acid..	17,202 "	2,234,994
Cement.....	171,000 bbls.	423,600
Chrome.....	315 tons	4,725
Chrysoprase.....	50 lbs.	500
Clays:		
For Pottery.....	67,933 tons	74,163
For Brick.....	169,851 M.	1,306,215
Coal.....	88,460 tons	248,622
Copper.....	27,860,162 lbs	3,239,975
Fullers Earth.....	987 tons	19,246
Glase Sand.....	4,500 "	12,225
Gold.....		16,910,320
Granite.....	257,650 cu. ft.	255,239
Graphite.....	42 tons	1,680
Gypsum.....	10,200 "	53,500
Infusorial Earth..	422 "	2,532
Lead.....	349,440 "	12,230
Lithia Mica.....	822 "	31,880
Lime.....	448,664 bbls.	369,616
Limestone.....	71,422 tons	90,524
Macadam.....	500,939 "	418,548
Manganese.....	870 tons	7,140
Magnesite.....	2,830 "	20,655
Marble.....	19,305 cu. ft.	37,616
Mica.....	50 tons	2,500
Mineral Paint....	589 "	1,533
Mineral Water....	1,701,142 gals	612,477
Natural Gas.....	120,968 M. cu. ft.	99,443
Paving Blocks...	3,502 M.	112,437
Petroleum.....	14,356,910 bbls.	4,692,189
Platinum.....	39 oz.	468
Pyrites.....	17,525 tons	60,306
Quicksilver.....	29,552 flasks	1,276,524
Rubble.....	1,555,076 tons	830,981
Salt.....	115,208 "	205,876
Sandstone.....	212,123 cu. ft.	142,506
Serpentine.....	512 " "	5,065
Silver.....	(Commercial Value)	616,412
Soda.....	7,000 tons	50,000
Slate.....	4,000 squares	30,000
Soapstone.....	14 tons	288
Tourmaline.....		150,000
Turquoise.....	510 lbs.	11,600

\$35,069,105

In the previous year the total product was valued at \$34,355,981, so that the increase for 1902 is \$713,124.

The total value of the metallic substances including precious metals for 1902 was \$22,052,796, which includes gold, silver, mineral paint, quicksilver, copper, lead, manganese, platinum and chrome.

The total value of non-metallic substances was \$3,706,368.

The total value of hydro-carbons and gases was \$5,184,387, an increase of \$1,651,678, including asphalt, bituminous rock, natural gas and petroleum. The gas is given in value of that commercially utilized. The petroleum price is the average per barrel f. o. b. at the wells or stations in each county. The number of barrels of oil produced was 14,356,910, valued at \$4,692,189 as against 7,710,315 barrels in 1901, valued at \$2,961,102. The increase in value has not kept pace with increase in amount, owing to prevalence of low prices in the oil fields especially in the valley counties.

The total value of structural materials was \$4,109,023, an increase of \$1,161,748 over previous year.

The relative value of principal mineral products of the State is as follows: 1st, gold; 2nd, petroleum; 3rd, copper; 4th, borax; 5th, clays, and their products; 6th, quicksilver; 7th, silver. In the previous year, the copper values were more than those of petroleum; quicksilver was fourth and borax sixth.

The relative rank of the counties of the State, in point of mineral production, is given in the following table. In each case the value given includes that of all the mineral substances combined produced in the respective counties for the year. The figures include aggregate value of all mineral products, including precious metals. These latter are based, as stated, upon United States Mint returns for the year. The term "unapportioned" includes total value of such substances as are grouped to avoid disclosing private business, as in the case of single operations in a single county.

### RELATIVE RANK OF COUNTIES.

Shasta.....	\$3,730,049
Kern.....	3,481,926
San Bernardino.....	3,308,002
Calaveras.....	2,371,013
Nevada.....	2,155,839
Tuolumne.....	1,830,329
Los Angeles.....	1,697,932
Amador.....	1,679,113
Siskiyou.....	1,094,745
Placer.....	1,018,487
Butte.....	926,251
Orange.....	824,742
Trinity.....	731,261
Fresno.....	670,058
Alameda.....	666,838
Mariposa.....	647,298
San Diego.....	562,730
Sacramento.....	555,138
Mono.....	549,298
Ventura.....	483,986
Santa Clara.....	411,112
Napa.....	410,963
San Francisco.....	395,100
El Dorado.....	381,578
Plumas.....	381,203
Riverside.....	334,622
Sierra.....	332,466
San Mateo.....	330,745
San Benito.....	328,231
Santa Barbara.....	315,550
Lake.....	288,231
Marin.....	206,600
Santa Cruz.....	205,296
San Luis Obispo.....	200,391
Sonoma.....	198,803
Colusa.....	194,500
Inyo.....	184,474
Solano.....	170,140
Yuba.....	155,632
Madera.....	121,151
Humboldt.....	79,555
San Joaquin.....	70,598
Tulare.....	62,398
Contra Costa.....	55,141
Monterey.....	39,233
Lassen.....	23,654
Stanislaus.....	19,026
Kings.....	19,000
Alpine.....	14,129
Mendocino.....	9,898
Del Norte.....	5,450
Tehama.....	3,500
Merced.....	1,656
Yolo.....	450
Unapportioned.....	73,619

\$35,069,105

It is to be noted that for the first time since

these detailed statistics were gathered, three counties show a product of over \$3,000,000. Shasta county, while showing a very material falling off in its total, is still in the lead. The decrease from the previous year is \$3,007,522, which is owing to the lower prices for copper, and the prevalence of miners' strikes at the leading producing mines, causing them to close down part of the year. Shasta owes its precedence to copper; Kern to its petroleum, and San Bernardino to its borax. While gold is still the leading mining product, its yield no longer puts the greatest gold producing country in the first place. Nevada county still leads in gold and silver, (\$2,149,564) though closely followed by Calaveras (\$2,119,173); but when total mineral products are considered, Calaveras takes rank above Nevada county, the difference being caused by the value of copper produced in Calaveras. As usual, Shasta county still makes the largest yield of silver, owing to so much silver-bearing quartz being used as flux in the copper smelting operations.

Asphalt was produced in 1902 in the counties of Kern, Los Angeles, Santa Barbara, San Luis Obispo, Santa Cruz and Ventura, most of it now being derived from the refining of petroleum. Bituminous rock was quarried in San Luis Obispo and Santa Cruz counties. Most of the borax came from San Bernardino county, though some was produced in Inyo.

Coal was mined in Alameda, Amador, Contra Costa and Riverside counties, most of it being from Alameda. Copper was produced in the counties of Amador, Calaveras, Contra Costa, El Dorado, Fresno, Inyo, Kern, Madera, Mariposa, Merced, Nevada, Placer, San Bernardino, Shasta, Siskiyou, Stanislaus and Tuolumne. The total product was 27,860,162 pounds, as compared with 34,931,785 the previous year. The valuation in 1901 was \$5,501,782, as compared with \$3,239,475 for 1902, prices being much lower last year, and output less.

Gold is more widely distributed than any other mineral substance thus far mined in California, thirty-five counties out of fifty-seven in the State showing a gold yield in 1902, and it is known to exist in several others. According to the returns received from producers at the San Francisco mint the gold yield for 1902 was \$16,910,320, and was derived from the following counties, which are named in the order of their respective gold product for the year: Nevada, Calaveras, Tuolumne, Amador, Kern, Butte, Siskiyou, Shasta, Placer, Trinity, Mariposa, Mono, Sacramento, San Bernardino, Plumas, San Diego, El Dorado, Sierra, Yuba, Inyo, Humboldt, Fresno, Riverside, Madera, Lassen, Tulare, Alpine, Los Angeles, Monterey, Del Norte, San Luis Obispo, Ventura, Colusa, Orange and Santa Barbara.

Petroleum was produced in the counties of Fresno, Kern, Los Angeles, Orange, Santa Barbara and Ventura. Thus it will be noted that only six counties are producing this substance notwithstanding the wide range of prospecting and drilling in numerous counties both north and south during the past two years.

Quicksilver comes from the counties of Colusa, Lake, Napa, San Benito, San Luis Obispo, Santa Clara, Solano, Sonoma and Trinity. There were 2,832 more flasks (of 7½ pounds each) produced in 1902 than in the previous year, but the total valuation is less, owing to prices.

Salt comes from the counties of Alameda, Colusa, Los Angeles, Marin, Riverside, San Diego and San Mateo. It is the product of solar evaporation of sea water and more than three quarters of the total is made in Alameda county from San Francisco bay water.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Oct. 6, 1903.

The Twenty-eight Oil company is deepening its No. 9 well.

C. A. Canfield's rig No. 1 on section 25, is nearly finished and drilling will be begun during the week.

The Hanford Oil company is making excellent progress on its No. 5 well, on which drilling was begun last week.

California Oil Fields Limited is finishing up well No. 16, on section 27, and it will be on the pump shortly. No. 15 is now being rigged up.

The Commercial Petroleum company spudded in on No. 3 last Saturday. The rig for No. 4 is well under way and before long two strings of tools will be operated on the lease.

The Pennsylvania Mining, Developing and Operating company has the lumber on the ground to put up its first rig on the SE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of section 12, and expects to begin drilling immediately after rigging up.

R. C. Baker on section 14 had his well perforated after going through nearly 100 feet of very coarse oil sand and the well will be put on the pump during the week. It is expected that the well will produce at least 100 barrels per day.

The Union Oil company on section 13 struck a fine well of about 17 gravity oil which will produce in the neighborhood of 200 barrels when steadily pumped. Drilling on No. 2 well was begun last week, and the rig for No. 3 is well under way.

The Roberts Oil company on section 1 has finished its well at a comparatively shallow depth of less than 800 feet. The well is finished in 7 $\frac{1}{8}$ -inch casing, and from the amount and quality of oil sand, the well promises to become a good producer. It will be perforated within a few days.

The R. H. Herron company is now fully established in its new store in the May block next to the Pleasant Valley hotel, where its office is located. Converting its old salesroom and office into storeroom enables the company to increase its stock which it has been doing during the past few weeks.

A gang of men are at work laying the eight-inch pipe-line for the Southern Pacific Railroad from Ora Station to section 7. It is also assured that branch lines will be extended to various parts of the field on the west side. The site for an immense reservoir to be built on section 7 has been located on which work will be started in the near future. Up to this writing it cannot be learned of any contracts

being made with operators for oil nor whether the railroad company take the royalty in oil.

Section Seven Oil company's No. 2 well has just been perforated and it is now being bailed. At intervals the well is spouting the oil half way up the derrick, and from its quantity of oil sand and the way she is behaving would indicate that it will become a close rival to No. 1 in its production. Ample facilities have been provided for the storage and shipping of the production by the addition of tankage capacity and a private line to the Pacific Coast oil tank on section 6.

R. M. D.

### The Wyoming Field.

EVANSTON, WYOMING, Oct. 26, '03.

Honorable G. E. Pexton has been in Chicago and Detroit the past week on oil business, returning to Evanston Monday.

The Fossil Oil company have reached a depth of 1,450 feet, having passed through one small stratum of oil sand. Manager Short says indications are very gratifying.

Messrs. James J. Hardin and J. H. Price, manager and superintendent of the Jager Oil company will return to Evanston this week and will resume work on their property on section 12, 15-118, at once.

The American Consolidated company commenced drilling in their No. 3 well on section 23 last Monday. Four more strings of tools will be running on this section within the next few weeks.

It is reported that the Atlantic & Pacific Oil company have passed through another stratum of oil sand in their No. 1 well on section 26, 15-118. Their No. 4 derrick, which was recently pulled in, has been repaired and drilling resumed.

The Inter-Ocean Oil company state that they will commence drilling on section 4, 14-118, by the middle of October. This property was formerly owned and operated upon by the Piedmont Oil company who ran out of funds before reaching the oil sands. The property is considered to be in proven territory.

E. S. E.

### The Western Kern Fields.

McKITTRICK.

The Midway Oil company are preparing to start up again in the near future.

The San Francisco-McKittrick are running one string of tools in the McKittrick district.

The Associated are running three strings on their properties and expect to start the fourth. Berry & Keller are running one string, so also is the McKittrick.

The Midway Oil company of Oregon have moved the tools from their No. 2 back to No. 1, something having gone wrong with the casing in the bottom of the hole so that it stopped pumping.

The Oriental company, Mr. McMurtry

manager, have just finished a nice well and it is showing up for a good producer. They are cutting off the unnecessary casing and pulling it out before putting it to pumping.

In the Midway district the Chanslor-Canfield-Midway Oil company are running two strings of tools. One cleaning out an old well (No. 2) and the other drilling a new well on section 7 just south of their other good wells.

The Reward Oil company are running two strings of tools. This is a new company and owned principally by F. W. McNear of San Francisco. Carl Burnham, one of their former superintendents at Coalinga, has charge of the property.

The Southern Pacific company are running two strings of tools on their property. At present both of them are on fishing jobs. One has a full string of tools in the hole and the other has a crooked hole. On completion of these wells it is not expected to do any more development work within the next year.

Mr. Miley's company, which has been drilling for the last number of months in the extreme northern part of the field, have abandoned the hole at about 1,500 feet, and are now drilling on a lease on the Clara Foulitz property. It is their intention to make a test well of this and go the limit as to depth and find what is below. All of the companies have stopped drilling before going through the sand, but it is their intention to find out for themselves the possibilities of the territory.

SUNSET DISTRICT.

The Arcola are running one string of tools on their property.

The Sunset Center is running one string and expect in a few days to bring in a good well.

The Queen Oil company is drilling again as also is the Crown, each running one string of tools.

The Fulton have just completed two immense reservoirs for the storing of their product.

The Spreckles companies are drilling one string of tools on the Monarch and one on the Teck Oil company.

The Transport Oil company are running two strings of tools, both on new work just northwest of Maricopa on their property.

The Maricopa Oil company are again working on their old No. 1 well, the one that produced so many thousands of barrels of oil. They are endeavoring to clean it out and bring it up to the old standard and indications are good for their doing so. Just east of their property the Fulton Oil company are running three strings of tools and expect in the near future to start the fourth. They have four wells nearly completed; all of them are showing up for immense producers. They have found so far about 200 feet of good producing oil sand and without a doubt when the wells are gotten in shape will prove to be hummers. They have been experiencing considerable trouble finishing the wells owing to the hole being full of heavy oil and sand and necessarily making the work slow. They have just ordered a steel cable to drill with and they hope with it to make better headway.

WALKING BEAM.

# READING

(IRON)

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### Dustless Roads Company Again.

On September 26th we printed an article, based upon information derived from an exchange printed at Riverside, about the Dustless Roads company having lost a suit in Los Angeles county involving the legality of their patent for oiled roads, and then last week we printed an article correcting this, saying that the legality of the patent was not involved and further that the suit was dismissed on plaintiff's motion because of an irregularity in the pleadings, etc.

We have since taken the pains to investigate for ourselves the claims of the Dustless Roads company and their patent for oiled roads. As is well known, this company is claiming an exclusive right to the process in common use now for oiling public highways, streets, etc., with crude oil. A patent covering this process was granted by the patent office April 5, 1898, to Frederick W. Mattern of Los Angeles, and the right to use this patent was sold by Mattern to the California Dustless Roads company. The patent sets forth the claims of Mattern to be an invention to "construct or manufacture roads, railway road-beds and race courses, which shall be free from dust and from which dust cannot be raised by the wind created by moving trains or the passage thereover of animals and vehicles." Other objects are also set forth and the method of preparing the road-bed is explained. After describing his invention he makes the following claims:

"1. A road having a covering consisting of fine earthy or mineral matter and heavy oil incorporated therewith, substantially as set forth.

"2. A road having a covering consisting of fine earthy or mineral matter and heavy oil or maltha incorporated therewith, substantially as described.

"3. A railway road-bed of fine material, such as gravel, sand or cinders, having its surface treated with heavy oil as and for the purposes set forth."

As will be noted the claim covers any wagon road, walk, race course or railway road-bed having a surface of fine earthy or mineral matter mixed with or treated with heavy oil. A road of cinders, gravel, crushed stone, earth or other fine material, upon which oil has been sprinkled would be included under this claim.

Until the validity of the patent is passed upon by the courts, there is no question but that every county, municipality or individual placing oil (heavy oil) upon a street or roadway without permission from the owners of this patent are infringing. As might naturally be supposed the railroads, those using oil for laying the dust on their road-beds, were the first ones to investigate the claims of the patentees, and the result is, as we are informed, they are all paying the royalty asked by the Dustless Roads company (\$15 per mile) on every mile of road-bed on which oil has been applied.

It is said that the twenty-six railroad companies that are paying the royalty asked first jointly investigated the rights of the patentees through a well known firm of patent attorneys who advised them that the claims of the Dustless Roads company was valid and could not be avoided. This being true, it would seem that those counties and municipalities that are resisting these claims have a big undertaking in hand.

The Dustless Roads company employed the legal firm of Watson & Watson of Los Angeles to prepare for them a legal opinion

on the claims of the Mattern patent from which we quote the concluding paragraph, as follows: "It is our opinion that the Mattern patent is broad and valid, and can be sustained in court, and that any unauthorized application of oil to wagon roads, streets, walks or railway road-beds is an unquestionable infringement of it."

### San Francisco Streets to be Oiled.

Persons living in the Richmond District having petitioned the Board of Public Works to allow them to have crude petroleum applied to the surface of Point Lobos avenue, between First and Twelfth avenues, the matter has been referred to the office of the City Engineer, says the Chronicle.

On a previous occasion, City Engineer Grunsky reported favorably on a similar petition, and he is known to be in favor of oiling streets and roads where the density of population and the amount of traffic will not warrant more expensive and durable paving. It is certain from admissions made that he will report favorably on the petition from Point Lobos avenue, and it is probable that many other streets, including a number that have been macadamized, will be selected for similar treatment. The oiling of park roads have proved a success as far as tried.

There is a district located between Lake and Point Lobos avenues, First and Twelfth avenues, where curbs have been put in and macadam laid, which is considered especially adapted to the oil treatment. A contracting firm which has done much work of the kind in various parts of the State, is beginning an active campaign among property owners to secure from them contracts to apply crude oil and to keep the streets in repair for a period of three years, after which, it is claimed, practically no further work will be necessary, except to make occasional repairs. It is asserted that even on sand, serviceable pavements can be made by the application of oil, properly worked in and rolled, provided that the water from rains be kept out of the sand, but macadam is considered especially desirable as a foundation for oil treatment, a smooth, dustless road resulting.

### Gobbling Up the Alaska Oil Fields.

Mail advices from Kayak state that practically all of the oil lands surrounding Controller bay and Kayak, Alaska, have been staked or secured in various ways by about twenty different companies. The Union Oil company of California has obtained a large area near Martin river and will ship two drilling plants for immediate operation. At Chancellor and Canfield California operators have another tract with one rig on the ground and two more ready for shipment from California.

What is known as the English company has secured 70,000 acres. The oil gusher struck last winter is on this land. They have four well-boring rigs on the ground and are erecting derricks, preparatory to putting them all at work. The Alaska Steam, Coal and Petroleum company, of which Klondiker Lippy of Seattle is president, has 20,000 acres, with two rigs in operation. Preparations have been made to sink 3,000 feet, though one of its drills has already pierced three oil strata.

The Alaska Oil Syndicate, composed of Puget sound men, owns 30,000 acres and has one well down nearly 500 feet. The Cudihee company and Spokane syndicate each have 10,000 acres. Smaller concerns have the rest of the oil-bearing area divided among them.

### Origin of Petroleum.

The origin of petroleum is one of the most obscure problems by which geologists are confronted. Numerous widely different theories have been advanced and advocated by geologists and chemists during the last fifty years, but as yet there is none which can be regarded as generally accepted and of universal applicability. In the present connection any full discussion of these theories is manifestly out of place, and only a bare outline of the more important ones will be given. It should be stated, however, that numerous facts have come to light in the development of the Coastal Plain field which have a very direct bearing upon theories of the origin of the oil.

The theories may be divided into three main groups—(1) Those which attempt to explain the origin of oil by inorganic agencies, (2) those which ascribe it to an organic origin, and (3) those which involve both inorganic and organic agencies. In 1866 Berthelot suggested that water containing carbonic acid or an earthy carbonate coming in contact with metallic sodium or potassium at a high temperature might produce both liquid and gaseous hydrocarbons such as are found in various oil fields. In 1877 Mendeleff published his theory, which remains the most plausible of all the inorganic theories thus far proposed. Stated briefly, it is that water percolating downward through fissures in the earth's crust comes into contact, under conditions of temperature and great pressure, with metallic carbides; that a chemical reaction takes place, with the formation of metallic oxides and saturated hydrocarbons, and that the latter ascend and impregnate the porous beds of sedimentary rocks in which they are now found. Various modifications of the theories of Berthelot and Mendeleff have been suggested by other chemists, but these contain the essential of all the purely inorganic theories which merit consideration. The fact is unquestioned that hydrocarbons similar to or identical with some of the constituents of natural petroleum may be produced in the laboratory by the action of inorganic substances, but no geologic or other evidence that these reactions actually take place in the earth's crust has been discovered. The conclusion must, therefore, be that while the inorganic theory is attractive it is not proved. —Paint, Oil and Drug Review.

### Mr. Eaton Going Around the World.

John Eaton, president of the Oil Well Supply company of Pittsburg, is going to make a trip around the world. At San Francisco he will be joined by four members of his family and others, who will make up a party of twelve. Among these will be Lee S. Smith and wife, and two members of the Smith family, and Mr. John J. Fisher, the well-known Pittsburg oil operator, a former resident of Oil City. They will spend six weeks in Japan, and will go from there to China and India, where they will spend several more weeks.

Mr. Kenton Chickering, vice-president and general manager of the Oil Well Supply company, who has been abroad for several months, is expected home.—National Oil Reporter.

The PACIFIC OIL REPORTER is the only exclusive oil paper on the Pacific Coast. More than that it is the only weekly paper in the United States devoted EXCLUSIVELY to the oil industry.



## False Promises of Fake Promoters.

So long as the American people "like to be humbugged" the fake oil and mining promoter will continue to reap his harvest of shekels. Warnings may deter some prudent persons from investing in wild-cat schemes, but there are always enough "fools with money" to make stock selling without reference to the merit of a proposition profitable. From time to time spasmodic efforts have been put forth to check the wholesale swindles that are constantly being perpetrated in the name of legitimate promoting. But no concerted and continuous campaign has been waged against swindlers of this class, and the result is that they flourish for a time, until they can get a considerable sum of money in their possession, and then disappear from public view. They well know that there is no individual or company who can checkmate them, because there is no permanent inducement for anyone to stand guard over the peoples' interests. In other words, "what is everybody's business is nobody's business," and so the swindler goes scot free.

It is none the less the duty of public officials and reputable journals to point out the danger of investments in fraudulent oil and mining companies. Unfortunately the speculative character of oil well drilling has made the petroleum business a favorite field of exploitation for the conscienceless stock jobber, with the result that the reputable companies suffer with the worthless ones in the general condemnation of all oil investments by conservative investors. It has come to that pass that careful investors in many instances positively refuse to have anything to do with an oil proposition, however meritorious. They will not take pains to consider that the fraudulent stock-jobbing operations which are so extensively carried on in the name of petroleum have no connection with that business further than to borrow an inspiration from their literature from the wonderful successes that have been achieved in the search for oil. Any other equally successful business (gold mining, for example) may be subject to the same evil curse of stock jobbing.

It is estimated that an average of more than five new oil companies are organized for every day of the year. Of these very few are ever heard of after the stock is sold. Granting that many of them make an honest endeavor to get oil, and that their failure in this attempt carries with it no disgrace, it is still true that there are many others which are organized with the sole purpose of parting the stockholder from his money.

W. S. Blatchley, state geologist of Indiana, has drawn his scalping knife and is hot on the trail of these companies in his state. If, he says, such companies had confined their operations to Texas, little would be said about them by me or in my reports, but several of them, organized in Chicago and elsewhere, have bought up or leased small holdings in Indiana and have been selling their worthless stock to citizens of this and adjoining states. One of these, located in Chicago, leased 326 acres near Wilder, Ind., and then issued an attractive prospectus, one of the main features of which was a portion of the report on the Jasper county oil fields, made by Mr. Blatchley's department in its annual report for 1900. The paper, as prepared and published by him, was, in this prospectus, garbled in every conceivable way to make it conform to the best interests of the Chicago oil company. Words and whole sentences were omitted or

changed as the interests of the said company demanded.

Their prospectus stated that they had an output of 75 barrels daily, and the net profits from the output of one of their wells in one year would be \$100,000; and from 100 wells, which they expected to sink, \$675,000 a year. Mr. C. K. McFadden, of Geneva, Ind., the well-known superintendent of the main Jasper county field, recently visited, without making known his identity, the offices of this company. Mr. McFadden says:

"Never in my life have I seen such a brazen and deliberate steal attempted by people who put up an outward appearance of respectability and honesty. Their statements, almost without exception, are absolutely false, and instead of having a production of 135 barrels daily, my field superintendent informs me that the total production from their wells would, in his judgment, not fill a teacup with oil in twenty-four hours' pumping, and that their oil, which is used for exhibition purposes, must have been taken from either our tanks or from those of our neighbors."

Another fake oil company, located in New York City, but incorporated under the laws of South Dakota, has also sent out an attractive prospectus, stating that it has secured 320 acres of land located in Indiana, seventy-five miles from Chicago; that it proposes to sink four wells to each acre, which wells will average two barrels daily. This product, when sold at \$2 a barrel, will yield a net profit of \$967,000 annually, to be divided among the stockholders. Fifty thousand shares of stock at 20 cents each are offered to a gullible public.

The whole Jasper county field, at the present rate of production, will not yield in twenty years what a single one of these companies offers to produce in one year. Better it would be for the person who has money to invest to buy grass seed and scatter it abroad for the sparrows than to invest in the stock of these or other similar companies. The assurance of some kind of returns from the investment would be infinitely greater.

The recent rich strikes of oil near Parker City and Selma have caused several of these fake companies to be organized in Indiana-

polis and adjoining cities, and their stock is now being widely advertised in certain papers. A few days ago, says Mr. Blatchley, a young man came into my office, said that he had organized a company and was selling stock and wanted to know where he could get a map of the field "which would show him where to drill to strike oil." From his conversation I judged that he knew less of the oil business than a poodle dog knows of the map of Assyria, for he asked the question in good faith. The company which he represented was a fair sample of many of those recently organized associations. It had not an acre of holding—not even a site for a derrick, and yet was disposing of stock at 20 cents on the dollar. The information which he got from me was not the kind which will advance the interests of his company.

There are many legitimate oil companies in Indiana and elsewhere which are operating valuable holdings and which have stock for sale. The remarks above made apply in no manner to such companies. For the most part they do not advertise their stock by the methods mentioned. If each person who has money to invest would investigate either personally or through some reliable person who is known to him, the oil property of the company whose stock he is thinking of buying, it would lessen the profits as well as the number of such fake companies as we have mentioned. —Paint, Oil and Drug Review.

## Don't You Believe It.

The Coalinga oil field is too limited in area to stand the drain caused by the number of wells being pumped from it, and soon it may, like many of the eastern oil fields, not pay to work. —Lompoc Record.

The editor who wrote the foregoing knows absolutely nothing about the Coalinga field or he would never have penned such an absurd sentence. The proven area in the Coalinga field is more than 5,000 acres and there are less than 150 wells scattered over this immense territory. The Record editor should post himself.

The Southern Pacific Railroad company has ten tanks between Houston and New Orleans which will hold an aggregate of 550,000 barrels of oil.



## We Build Galvanized Iron Tanks

For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank. Being situated near the Coalinga fields, we are in a position to make extremely low prices. We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

**KUTNER, GOLDSTEIN CO.**  
HANFORD



# THE LATEST OIL NEWS.

## Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

### Alaska.

W. A. Abernethy, J. McClelland and A. H. W. Gould, have located some 600,000 acres of oil and coal lands at Cold Bay, Alaska. They report everything lively in that section. James Casey has located some 600,000 acres and has twenty men at work prospecting it. J. H. Costello has nearly as large an area and is employing fifteen men. They are working both on coal and oil. Well boring machinery has been sent for and soon will be sinking.

### Coalinga.

The following items of oil news is scissored from the "Coalinga Oil News:

The rig for the Pennsylvania-Coalinga No. 3 is nearly completed.

Philadelphia-San Francisco, No. 3, was put on the pump Monday, and is a good well.

R. C. Baker has built a rig on his property on the St. Paul lease and will drill No. 2 well soon. The Southern Pacific Railroad will build a four-inch pipe-line to this property and handle the product as soon as their main line is finished.

Thomas O'Donnell, who is operating on the Nathan lease, on section 7, states that the No. 1 well is 450 and No. 2 400 feet deep. The wells have been started with sixteen-inch tools, and up to the present time no casing has been put in.

COALINGA, OCT. 6, 1903.

The Octave Oil company, operating on the old Elk Oil company's lease, are down over 800 feet and have a prospect for a good well in the next few hundred feet. This property is located near the center of section 22, near the Caribou.

The Caribou have let a contract for cleaning out their wells to Messrs. Shreeves & Hardison, of Bakersfield. They are just commencing work on No. 2 well and will drill it deeper to the good sands below, the same as the Cal. Oil Fields Ltd get their good wells in.

The Sour Dough are figuring with the same contractors and are expecting to drill two new wells.

The California Oil Fields Limited are only running two strings of tools, one cleaning out and the other drilling.

Twenty-eight Oil company are running two strings, one cleaning out and the other drilling.

The Hanford are also running one string of tools, drilling on new work.

Oil City Petroleum are cleaning out their No. 8.

The Independence, who have been drilling their old No. 7 deeper, have finished up and have a fine well.

The Call Oil company are having considerable trouble with running sand, having already gone through 150 feet more than any of the nearby wells. From now on good drilling is expected and good time will undoubtedly be made. They have their No. 2 rig completed and the contractors will soon be rigging up to drill.

The Commercial Petroleum company have started their No. 3 and are down over 250 feet. Old Nos. 1 and 2 are now doing better than when first drilled in.

Maine State No. 6 is down over 600 feet and making good headway.

McClurg & Claypool are down about 400 feet with their large casing and are doing nicely. Mr. McClurg was taken suddenly sick a few days since and had to be taken to his home in Selma by one of his drillers. We learn he is now improving.

The El Capitan are getting ready to drill No. 3 on their south line, west of No. 1.

The El Zumo Puro are also rigging up to drill on their No. 4.

The New S. F. Crude, who for the past number of months have been trying to shut off water in old No. 1, have let the contract to a professional from Bakersfield. If he is successful it will improve the well it is expected over one hundred per cent, as No. 2 is a good one and flowing nearly steadily.

The Mercantile Crude are down over 500 feet on No. 3, next to the Esperanza property.

The Esperanza are drilling a water well near their No. 1 well and will in the near future supply their own water.

Section Seven Oil company have their No. 2 completed and it will be nearly as good as No. 1, which is still making over 2,000 barrels a day.

The Pleasant Valley Stock Farm well No. 1 is down over 600 feet.

O'Donnell & Nathan's Nos. 1 and 2 are both down about 450 feet. They are both using 13½-inch screw casing.

The M. K. & T. are down over 2,350 feet and are just getting in the formation the same as other companies have found just above the oil sands.

The Union Oil company are down 250 feet on No. 2 and are getting ready to drill No. 3 as quickly as possible. Their lease calls for five wells, which number will be drilled as soon as they can be gotten ready.

The Caledonian are down over 1,100 feet and still drilling. This is their No. 2 and is a test to see if any good sands are deeper down, having gone through good sands at about 700 feet.

Blue Diamond are a little over 1,000 and are drilling for the deep sands same as the Caledonian.

Chanslor & Corey are rigging up on their No. 1 south and east from the Caledonian and will probably get started spudding sometime Monday.

The Southern Pacific Railroad have a large gang of teams and men at work on their new pipe-line which when completed will tap the entire west side field.

There is a petition being circulated among the oil operators and merchants to ask the Southern Pacific for better train service between here and Hanford, which, by the way, is the poorest in the State and has not a little to do with keeping back the development of this section, as it is NOTORIOUS as a hard trip and as no trains are ever on time, no one will take the trip if it can be avoided.

Coalinga is experiencing the liveliest times in its history. Lumber and oil well supply firms are having hardest kind of time to keep oil fields supplied with their urgent needs, to say nothing of a surplus, or to get in a stock or supply.

WALKING BEAM.

### Kern.

The coming of cool weather and the return of many officials from vacations are stimulating activity in the fields, operations being resumed where left off before.

The Associated has about twenty rigs in operation on its properties on section 32, which is in the heart of the field and on which are located the Kern, Omar, Reed Crude and others.

The Midway Oil company has leased to the Oriental Oil company the SW¼ of SE¼, NW¼ of SW¼, SE¼ of SW¼

of section 5, NW¼ of NW¼, SE¼ of NW¼ of 8, 32-33 for ten years with privilege of ten year's extension. The royalty is 17½ per cent.

The second trial of Charles S. Vezie, charged with the theft of an engine, oil well casing and belting from the Valley View Oil company's property in the Kern River field, has been set for November 24, 1903. At the first trial the jury disagreed and failed to render a verdict.

In the case of the Occidental Oil company vs. the Inter Nos Oil company, the defendant has asked for a change of venue from Kern to San Francisco for the reason that the defendant's place of business is in that city and that most of the witnesses reside there. The defendant has also filed its answer and put in a counter claim. It denies that there is any balance due plaintiff.

The Associated's new office building on the San Joaquin lease is reported to be nearing completion. It is to be quite a large substantial structure, and it is considered certain that, at least, a large part of the office force now employed in town will be sent to the field when it is finished. It is even believed by some that the combine intends to move to the field entirely, abandoning its Bakersfield office.

President Knowles of the West Shore was in the field last week looking over the property. This company pays its sixteenth dividend to-day. This will make a total of \$80,000 disbursed in dividends since the corporation was organized. It is now sinking its eleventh well, besides putting in a large underground tank. The property is on 32, 28-28 and the company is one of the leading independent companies in the Kern River field.

The amount of work expected in the oil fields during the winter may be seen from the fact that it is seemingly impossible for the various companies to get power enough to carry on their operations and new boilers are being put in on many properties. The West Shore has just commenced installing two of 100 horse-power each. Among others now installing similar plants are the Illinois Crude, Sacramento, Imperial and Thirty-three. On some properties the work is now completed.

The Famosa Oil and Development company has levied an assessment of 2 cents per share on its capital stock. The same will become delinquent on November 14th and on December 14th will be sold. The property of the company is at Kern River. The principal office of the company is in San Diego. The Kern Canyon, another Kern River corporation, with its principal office in Fresno, is also levying an assessment of 2½ cents, which will be delinquent on the 14th inst. and the sale of all unpaid will be on the 31st. Neither of these companies have been doing work during the past year, but will presumably resume operations with the advent of better times in the oil business.

The Kern River oil companies are beginning to make a showing on the right side of the account and the era of assessments is giving way to an era of dividends. For the month of September there were paid to shareholders in dividends a total of \$73,319 from nine companies, all of them doing business in the Kern River fields, excepting the Pittsburg, which declared a dividend of \$6,000. The other companies that are now upon a paying basis, sufficient to justify declaring returns to stockholders make the following satisfactory showing for September: Aztec, \$4,700; Four, \$3,000; Imperial, \$20,000; Monte Cristo, \$5,000; Peerless, \$14,000; Senator, \$3,619; Thirty-three, \$10,000; West Shore, \$5,000.—Californian.

### Los Angeles.

The experiment of oiling the streets

in a most thorough and approved manner has been entirely successful in South Pasadena. Nowhere will one find more delightful stretches of long avenues, lined with trees on each side, and a good, smooth road, free from dust, to delight horseman and the automobilist.

For the third time within a few weeks the Pacific oil refinery, on Butte avenue, took fire last night at about midnight. Two tanks were burned before the flames were controlled by the fire department, which ran a line of hose over from the nearest main, using relays of engines to force the stream through. Spontaneous combustion is supposed to have started the blaze. The loss will amount to about \$300; uninsured.

### Santa Barbara.

A dispatch from Santa Barbara says: "News of one of the most important oil strikes in the history of Santa Barbara county reached here to-day. It is stated that one of the wells belonging to Fox & O'Boy of Lompoc, being sunk in the Santa Rita district, about eight miles north of Lompoc has developed a heavy flow. This is of especial interest to oil men, for the reason that the reported strike is one of the first on the southern side of the range separating Lompoc from the Careaga and Santa Maria districts. Heretofore all the oil strikes have been made on the northern side of the divide with the exception of a few near the coast, and, although many wells have been sunk in the Santa Rita district, the operators have heretofore met with little success.

### Ventura.

The efforts of the Ventura Light Heat and Power company to develop natural gas in the bed of the Ojai river have proved successful and a franchise has been asked of the board of town trustees by a separate company, organized for the purpose of furnishing this gas for domestic uses. One well has a flow of 7,000 feet of natural gas. If the experiment is successful this city will be the first in the State to use natural gas for domestic purposes.

### Whittier.

Whittier-Filmore will soon begin a rig for well No. 2. The location will be east of No. 1.

Turner Oil company has the rig up for No. 7 and will begin drilling Monday. The rig for No. 8 is building.

Fidelity Oil company will begin drilling on No. 4 soon. This company has done no development work for some time.

Whittier Crude begins spudding in on No. 8 Monday. No. 7 was finished recently at 1,200 feet and is a good average producer.

The Warner Oil company is having a new derrick built to replace the one burned over No. 7. No. 8 derrick will be put up at once.

## Dividends Expected from Associated.

Stockholders in the Associated are looking forward to the next annual meeting of the company in January in the hope that the company will then inaugurate the policy of declaring dividends. The Associated is doing a tremendous business, and has been for many months past, and from the extent of the sales of oil stockholders are led to believe that there is a handsome profit in sight for them as the result of the great volume of business transacted.—Californian.

Subscribe for the PACIFIC OIL REPORTER.



## The Bakersfield - Ventura Electric.

John Burson, who is now up to his eyes, figuratively speaking, in pushing the preliminary operations on the contemplated Ventura and Bakersfield electric railroad, was in town yesterday and looked into our sanctum, says the Ventura Democrat. He informed us that dirt will begin to fly not later than next week on the roadbed, and that in addition to the cargo of ties recently received at Hueneme, a number of plows, scrapers and other implements needed in the work have also been landed at the Hueneme wharf. He hasn't decided definitely where operations will be inaugurated, but very probably at Oxnard, thence built towards Hueneme. He has also positively decided to build into Ventura as soon as possible.

The construction work for the present will be under the immediate charge of Messrs. Burson and Purcell, after which it will pass into the hands of Mr. Herbert, now vice-president of the Colorado Southern Railway company, and formerly connected with the Southern Pacific. He is a gentleman of vast experience in railroad building and well known as a practical and able man in that line of business.

Mr. Burson is thoroughly sanguine of the ultimate success of his undertaking and expressed the belief that not many months will elapse before Ventura and Bakersfield shall be connected by electric bands.

### An Ideal Road.

When railroad avenue from Chester avenue east was being brought up to grade by filling it with clean sharp sand, some doubt was expressed as to the quality of the road-bed it would make. So far as it is possible to foretell, now, after the street has been in active use for about two months, it is likely to make one of the best in the city.

After the necessary amount of sand was hauled in it was brought to the proper curve and thoroughly oiled. The oil was worked in with the rolling tamper, and finally it was worked with the drag or planer until the surface was as even and devoid of bumps and hollows as the asphaltum pavement itself. At present the center of the avenue, where the bulk of the traffic is, is in almost ideal condition. It is well enough packed so that even heavily loaded wagons leave no ruts, and still it is as soft and elastic as though it were paved with rubber. The edges of the avenue need packing badly, and if the ordinary travel is not sufficient to do it, it would probably pay the city to roll it thoroughly before the rains come. With the whole

surface of the avenue packed as the center is, it looks as though it would be proof against the Kern county rainfall. If it is and if the present promises of the road holds out, the properly constructed oiled road-bed will very nearly be equal to an asphalt pavement for county roads and suburban streets — Bakersfield Echo.

### Protecting Levees with Oil.

The preservation of levees around reclaimed land, which has long given large property owners much worry, has been solved by the application of oil in a manner similar to that employed in the treatment of roads, says a Stockton special. The fluid is first heated several degrees and then applied in such a manner that a hard coating is formed. This renders it impossible for the top of the embankment to become pulverized or cut up by teams to such an extent that the soil may be blown away by the high winds during the summer. Nor does the wash at high water have any effect. Furthermore, it keeps off the gophers and squirrels, which formerly burrowed into the levees and often caused great loss during the winter, when the water would run into the holes and form crevasses.

De Camp & Mosier, who have extensive contracts to oil the levees on the island, are having a special compartment barge built here, and will fit it up with engines, pumps and a heater to do this particular kind of work. After the fluid is heated it is forced into wagons especially made for spreading the oil. The barge will carry 1,800 barrels in her hold and also move the wagons and horses from one point to another.

The levees on Grand island have been treated, and a contract has just been let to oil the embankments on Roberts island.

### Zephyrs From the Oil City "Blizzard."

Where ignorance persists it is folly to argue.

Men whose examples are considered worthy of emulation should endeavor to realize the importance of the fact.

Even the worm in the chestnut will turn.

Premonitory symptoms of the approaching football season are in evidence on every hand.

It was quite ungallant on the part of Major Delmar to so soon equal the two-minute record of Miss Lou Dillon, who no doubt considers the Major as "just too mean for anything."

A man sometimes makes a fool of himself because it is so much easier than to make anything else of the stock on hand.

When our forefathers wrote of "life, liberty, and the pursuit of happiness," they might have been thinking of the joys of going fishing.

Would you draw a lesson from quiet, patient perseverance? Then take yourself to the barnyard and consider the cow as she meekly chews her cud.

## INQUIRY DEPARTMENT

1. Do you consider Arcola Consolidated oil stock a good buy at 12½ cents a share?

Yes.

2. Is there any certainty of the railway being extended into the district where the Arcola wells are situated?

The railway is in process of construction at the present time.

I have just invested in some oil and coal lands in Alaska, near Kyak, and thought you might know how the situation is there, as the Southern Pacific has sent some experts to the locality.

Since this inquirer has already invested his money our opinion of the Alaska oil fields can be of little use to him. People who invest first and investigate afterwards are entitled to little sympathy if they get caught. Perhaps (?) this inquirer might get some information from the Southern Pacific expert when he returns.

### DIVIDENDS SOON.

Wouldn't you like to own some stock in a good mine that will pay dividends beginning with this month? Send for charts of the tunnels; plain, simple and comprehensive, showing at a glance what it would take many pages of printed matter to explain.

DEBENTURE SURETY CO. (inc.)  
Rialto Bldg., San Francisco.

Mention this paper.

## A Fine Artesian Well.

F. U. Purcell, who has charge of the work of sinking the artesian well at Waukena for the San Francisco Savings Union, was in town Friday. He reports that the well has been finished so far as depth is concerned, but there is some perforating yet to do and the columns are yet to be withdrawn. The depth is 868 feet and there is a flow of 3½ inches over a ten-inch casing. The well is close to the Santa Fe track, and is an object of considerable curiosity to Eastern people who view it from the car windows. The Savings Union people have intimated that it is their intention to bore several additional wells in that vicinity.—Tulare Register.

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**A Bait for Suckers.**

"Cut-Rate Brokers," "Jobbers," and "Bargain-Counter" dealers in mining stocks must all take their hats off to the "Combination Order Blank" issued by the Douglas Lacey & Co., of New York and branch offices in thirty-seven other cities. "Eight Special Combinations Carrying Out the Principle of General Average as Applied to Mining," extensively circulated among the verdant greens ought to bring in sufficient funds to make the "average" amount contributed by the poor public of considerable interest to the schemers who have the nerve to foist such a proposition on the public under the guise of mining.

There is no such thing as "Average as Applied to Mining." The "average" which this firm has in view no doubt applies to the public, and the "average" sucker who goes up against such a game ought to have a guardian appointed. Their circular smacks of "Preferred Treasury Stock Only" at "Original Founders' Share Prices," and many other catchy phrases, soothing to and winning to the small investor, who is looking for something for nothing.

This firm is careful not to advertise their wares in the legitimate mining papers, preferring to use the daily press of New York. The object of this is apparent to any one with an ounce of brains. If the Douglas, Lacey & Co. are not entitled to a place among the 'Get-Rich-Quick' concerns, their method of operations is questionable, to say the least.—Western Mining World.

**Borax Deposits.**

The known deposits of borax in the United States are in California, Nevada and Oregon, and the production on a commercial scale was begun in 1864 at Clear Lake, 80 miles north of San Francisco, by the evaporation of the saline waters. The industry progressed favorably at this and other lakes in California, until, in the early seventies, large quantities of the pure mineral were discovered in the alkaline marshes of California and western Nevada, which caused the abandonment of the lake refineries and the erection of new plants, notably near Columbus, Nev., at Searles Marsh in the Armagosa valley, and at the mouth of Furnace creek in Death valley, California.

In spite of the difficulty and great cost of transporting the refined product by team 100 miles to the railroad, the refineries continued in operation for several years, until the large increase in the domestic production, coupled with the increased imports from Italy, so reduced the price that this method of refining became no longer profitable, and the refineries were abandoned.

About the year 1890 it was discovered that the borax crust on many of the marsh deposits was derived from the Tertiary beds of calcium borate (borate of lime) abounding in that region. The marshes were abandoned and a mine was established on a bedded deposit of mineral from 6 to 10 feet in thickness at Borate, 12 miles northeast of Daggett, Cal. The Pacific Coast Borax company owns this plant at the present time and is the chief producer of borax and boric acid in the United States.

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Published on the  
Pacific Coast.**

It gives full, fresh and authentic oil news from all the oil districts, new and old. It exposes fraudulent oil companies. It gives the latest information on oil stocks and dividends. It describes the latest method of drilling wells, pumping, piping and storing oil; use of oil for road making, etc.

It is the only paper which advocates the belief that California's refined asphalt is the equal of Trinidad asphalt for paving and other purposes, and is in every way superior to bituminous rock, the use of which has given San Francisco, Oakland and other California cities so many poor streets.

The subscription price is \$2.50 a year. If you are interested in any way in California oil, cut out the following coupon, fill in the blank lines, and send it, accompanied by check, money order or express order to the

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## Standard May Pipe to Midway.

There is good reason to believe that the Standard is about to invade the Midway field with a big pipe-line to connect with the Bakersfield-Point Richmond line at Bakersfield. There is no territory on the west side of the valley that is making a better showing than the Midway and there are companies in that district that are ready to contract for a million barrels of oil provided the transportation facilities can be arranged.

It is said that the matter has recently been presented to the officials of the Standard and that it has been taken up with those in higher authority and the rumor is that favorable action has been determined upon.—Bakersfield Californian.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, October 7th:

ALMA.			
100 at	1 40		\$ 140 00
CHICAGO CRUDE.			
1,000 at	21		210 00
ESPERANZA.			
200 at	1 25		250 00
FOUR.			
1,595 at	69		1,100 55
HANFORD.			
1 at 145 00			145 00
HOME OIL.			
1,700 at	1 27 1/2	2,167 50	
100 at	1 27 1/2 (B 30)	127 50	
1,350 at	1 25	1,687 50	
650 at	1 22 1/2	796 25	
100 at	1 20	120 00	
100 at	1 20 (S 30)	120 00	
100 at	1 15	115 00	
200 at	1 10	220 00	
100 at	1 05	105 00	
300 at	95	285 00	
INDEPENDENCE.			
2,000 at	18 (B 30)	360 00	
1,000 at	17	170 00	
MONARCH.			
200 at	51	102 00	
MONTE CRISTO.			
1,000 at	75	750 00	
OIL CITY PETROLEUM.			
1,500 at	26	435 00	
PEERLESS.			
25 at 14 00 (B 30)		350 00	
25 at 13 75		343 75	
REED CRUDE.			
1,900 at	40	760 00	
SOVEREIGN.			
350 at	40	140 00	
70 at	39	27 30	

15,666 Shares	Amount \$11,027.35
ABBEY LAND & IMP. CO.	
25 at 1 60	400 00
100 at 1 75	175 00
TRUCKEE ELECTRIC.	
50 at 13 25	662 50

175 Shares Amount, \$1,237.50  
The monthly record of sales since January 1, 1903, is as follows:

Shares.	Value.
January	267,019 \$255,202
February	322,443 219,358
March	199,908 151,982
April	236,268 115,571
May	401,454 154,386
June	154,720 117,928
July	74,594 71,890
August	181,478 119,231
September	146,123 74,455

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma		1.40

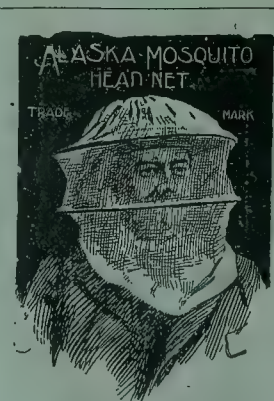
Apollo	40	43
Asso. Oil Co Stk. Tr.		
Certificates		
Aztec		
Bay City		
Bear Flag		
California Standard		
Caribou	1.00	1.10
Central Point Con.		
Chicago Crude		
Clairemont	24	40
Esperanza		
Fauna		
Four	68	69
Fulton	3.00	
Giant		
Hanford	144.0	
Home	90	97 1/2
Homestake	1.00	5.00
Imperial		18.00
Independence	17	18
Junction	18	20
Kern	4.50	5.00
Kern River	10.00	
Lion	03	04
Monarch of Arizona	50	55
Maricopa		12
McKittrick		
Monte Cristo	74	
Nevada	40	45
Occidental of West Va.		20
Oil City Petroleum	28	
Peerless	13.50	14.00
Petroleum Center		
Piedmont		
Pittsburg		
Reed Crude		41
S. F. & McKittrick	2.75	
San Joaquin O. & D.	5.25	
Senator		
Shamrock		
Sovereign	39	41
Sterling	2.80	3.00
Superior		07
Thirty-three		8'00
Toltec	21	
Twenty-eight	4.15	4 20
Union		
United Petroleum		
West Shore	2.80	
Western Petroleum		
Wolverine		

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Estate of William B. Winn, deceased. Notice is hereby given by the undersigned, executrix of the estate of William B. Winn, deceased, to the creditors of, and all persons having claims against, the said deceased, to exhibit them, with the necessary vouchers, within four months after the first publication of this notice to the said executrix at the office of William H. Waste, attorney-at-law, 906 Broadway, Oakland, Cal., which said office the undersigned selects as her place of business in all matters connected with the said estate of William B. Winn, deceased.

MARIA ROSA WINN, Executrix of the last will and testament of William B. Winn, deceased.

Dated Oakland, September 28, 1903.

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9:30 A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:11 a. m.

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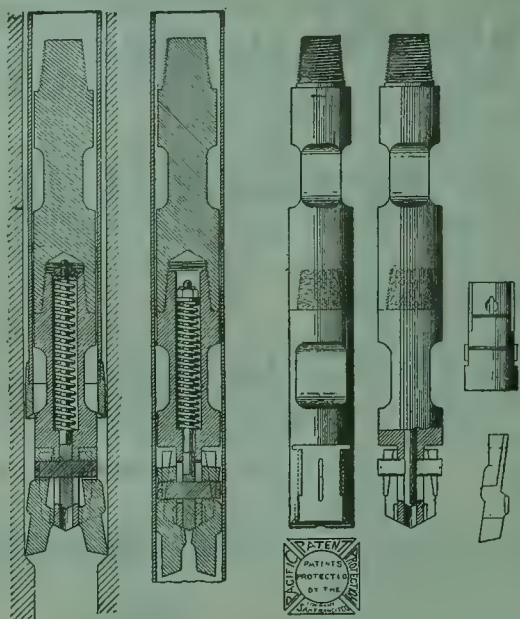
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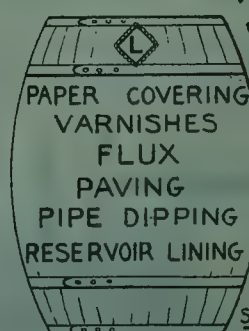
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Vol. 4. No. 50.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 17, 1903.

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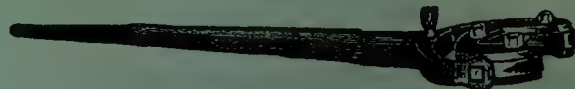
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# PACIFIC OIL REPORTER

VOL. 4. No. 50.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 17, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

MRS. MARIA ROSA WINN, Proprietor.

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Editor and Business Manager

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### WHAT OF THE FUTURE?

The following item of news has appeared in all the daily newspapers during the week: "For the third time within ten days the Standard Oil company advanced the price of oil to-day, making Pennsylvania \$1.65, the highest quotation in three years. The advance is due to the fact that very little new producing territory is being found."

What does it mean? Read the extract published elsewhere in this issue from the Oil City Derrick giving a resume of the regular September reports from the eastern oil fields. In the light of the facts as they seem to exist there can be but one answer to this question. In connection with these facts let us take a glance at the operations of the Standard Oil company in our own State. What this great corporation has done the past year in the building of the great refinery at Point Richmond and the Kern River pipe-line is already common knowledge. What it is planning to do in the next year can only be conjectured by those outside the executive offices of the company.

That the Standard Oil company is compelled to look to other fields than those in the East for its future supply of illuminating and lubricating oil is already apparent. Unless new extensions are discovered the Trenton rock districts will soon be drained. Kentucky, Kansas, Colorado and other states are not fulfilling the hopes that at first were based upon them. Even Texas is not holding up to expectations. California alone of all the oil producing states is surpassing all expectations. It is doing more. Every day is strengthening the belief that for the next few years to come, at least, California will be looked to by the Standard Oil company to supply the deficiency of illuminating and lubricating oil for the markets of the world occasioned by the great falling off in the eastern fields.

It is known for a fact that the California asphaltic oils produce as good an illuminant as the eastern oils of a paraffine base. The common notion that California oil is only good for fuel and asphaltum is disproved by the great Standard refinery at Point Richmond where thousands of barrels of oil are refined daily and not a barrel of asphaltum is pro-

duced. What percentage of kerosene, gasoline, benzine and other refined products the Standard Oil is getting from the crude oil that goes to the Point Richmond refinery nobody outside the confidence of that great company can know or find out, but we are credibly informed that there is a refinery in Los Angeles that is getting 50 per cent of kerosene from the heavy Los Angeles crude. This being true, we are not so dull that we can not reason that if the Standard Oil company was not doing as well as this or better it would soon put that little Los Angeles affair out of business by buying up refiner, refinery, process and all.

We believe the Standard Oil company is doing with the Kern River and Coalinga oils what the Atlas is doing at Los Angeles with the oils from that field.

What is the significance of this? Does it not mean that the California oil is worth nearly as much for refining as the eastern oil?

Whatever disparity there may be in the quantity of refined products derived from the California oils as compared with eastern oils, we believe the difference is offset by the increased price received for those products here on the coast. Taking this view of it, it does seem to us that the Standard ought to be paying more for California refining oils to-day than it is.

The Standard has on foot a move that means much for the two leading fields in the state, Kern River and Coalinga. It is the building of an additional six-inch pipe-line from Mendota to Coalinga. While the effect of this will be detrimental to Kern River it shows that the Standard must have the refining oils of the Coalinga field to keep the big refinery going so as to keep up with its demands for refined oils.

Of course, with two six-inch pipe-lines feeding the big eight-inch line with the light Coalinga oil there will not be much doing on the Bakersfield end. Kern River will be at the mercy of the railroads and the natural result will be a big decrease in the output of that field. Already the price of Kern River oil is down below 20 cents and where it will go to with everybody wanting to sell and a surplus on hand is hard to tell. The outlook is rather dark for Kern River when it ought to be just the reverse. Of course the blame for this will be laid to the Standard Oil and the railroads. But are they wholly to blame? We think not. Kern River fuel oil should be selling in San Francisco to-day for at least one dollar per barrel. That it is not is due to the operators themselves. The Standard and Southern Pacific railroad will not keep the price up when the operators insist on forcing it down.

If the operators want the price to go up let them get together and refuse to sell at present prices, or shut their wells down altogether, which would be the better plan.

Kern River is producing about 50,000 barrels of fuel oil per day, which is about the amount consumed by the trade. With a surplus of fuel oil in the San Joaquin fields and the Standard directing its energies toward securing only the refining oils it looks just a little discouraging for the fuel oil industry

when every other outside condition seems to indicate a most promising outlook.

What of the future?

### Personal Mention.

Robert Hays Smith, the Coalinga hustler, was in the city this week.

Julius Fried, of Coalinga, is in the city. His company, the Westmoreland, is just starting work.

M. L. Woy, of Fresno, was in the city on Wednesday on his return from Portland, Oregon. Mr. Woy is a heavy land owner in the Midway district.

C. F. Whittier, well known in Bakersfield, but now operating for oil in the Indian territory, had the misfortune to break his leg. A piece of casing which he was working with fell and struck him below the knee.

### Independence Has a Big Well.

Just as we are going to press word comes from Coalinga that the Independence Oil company, operating on section 28, has brought in its No. 8 well and that it is by far the biggest producer ever developed on that section. Nearly 600 feet of oil sand was penetrated, the casing being landed at 1,319 feet. The well is producing at the rate of 1,500 barrels a day. This is the first well on the section to go clear through the oil sand and it demonstrates the possibilities of that part of the field.

### Will Burn More Oil.

The Santa Fe railroad will convert all of its coal burning engines used on its system as far east as Kansas City into oil burners. The experience of the Southern Pacific in the use of oil has been so satisfactory that the Santa Fe officials have determined to follow suit. The necessary orders have been issued and the preliminary work has already been started. A number of immense tanks will be constructed along the lines of the Santa Fe and it is expected that the use of oil will save \$1,000,000 a year for the company.

### The Associated Enters Coalinga.

The Associated Oil company has entered the Coalinga field and has secured a lease on the northwest quarter of section 24, 20-14, being in the western extension of the field adjoining the recent purchase of the Union Oil company. The land is owned by Kirby Smith of Fresno and is considered one of the finest tracts in the field. To be in exact accordance with the facts, we should state that the lease is taken in the names of some of the officers of the Associated and will be operated by these individuals, presumably.

### Stock Market.

The local stock market the past week has shown a marked improvement over the previous week, but still it is not particularly active. Home seems still to be the center of interest. Nearly one-half the volume of business was in this stock. But it is hard to keep it up to the dollar mark. Sterling was quite active and Oil City Petroleum maintained itself at former prices. Other stocks were little sought after.



## SLOWING DOWN.

The great commercial agencies, which are supposed to be in close touch with the business pulse of the country, tell us that there is a very noticeable slackening in the activities which of recent years have characterized the business life of our nation. The symptoms, while not alarming, are sufficiently marked to excite considerable comment from economic writers. One does not have to travel far to find the reason for this falling off in the volume of business now being transacted as compared with former years.

The tendency in business life, as in social life, is to go to extremes in times of prosperity, but high tension in both instances is usually followed by either total collapse or marked depression. From the great eastern trade centers the word is going out that the volume of business this year, as compared with last, indicates that the manufacturing industries have caught up with consumption, and, in fact, have in many instances gone beyond it and are slackening their speed. There is also a very noticeable falling off in the demands of consumers, and, taken altogether, these symptoms seem to indicate that the business life of the country is getting back to a normal condition. It is to be hoped this is true. Too much prosperity is dangerous. We have had much evidence of this during the current year. The abnormal growth of great commercial enterprises, the over-capitalization of stock companies, the combination of capital in trusts, and the tendency to speculate upon fictitious values, are the natural outcome of too much prosperity. While the result of all this has been disastrous to a very marked degree, it is also very evident that this result has been accepted and interpreted by the business world as the reward of over-indulgence and not in the sense of a threatened disaster.

The recent failures in Wall street and the East, had they occurred ten years ago, would have caused the wildest panic throughout the land. Now they are commented upon in the newspapers as though they were the commonest of occurrences and they are scarcely read about except by those directly interested. The everyday business life of the country is affected by these failures in an indirect way only.

The lesson to be learned from these failures and business reverses is a most wholesome one. It is that fortunes are not made from wind nor in a day; that the coin that jingles is a safer capital on which to do business than the water that drowns; that the public is able to discriminate between honesty and dishonesty, between gambling and legitimate business. It also disproves the common idea that trusts are a direct menace to the life of the nation. The collapse of the asphalt trust, the shipbuilding trust and other well-known trusts, is proof that if left to themselves they will sooner or later collapse when founded upon principles of greed and dishonesty as most of them are. Those affected by these failures are usually those able to stand it. Every trust in the land might collapse within the next year and the general welfare and business life of the country would be little affected by it. This is a most hopeful sign. Things are assuming a normal condition, but there is nothing in it to cause alarm.

The PACIFIC OIL REPORTER is the only exclusive oil paper on the Pacific Coast. More than that it is the only weekly paper in the United States devoted EXCLUSIVELY to the oil industry.

## BIG COALINGA WELLS CAUSE ANXIETY.

A Bakersfield correspondent of the Los Angeles Herald says that the developments in the Coalinga field are causing considerable anxiety among Kern River operators. The big 2,000-barrel wells of the Section Seven company are giving them cause for worry. The same may be truthfully said of other fields in the State, not excepting Coalinga itself. The big wells make the little fellows look like thirty cents, and naturally the little fellows don't like this. Before the large wells were brought in a 100-barrel well was considered good enough for anybody and a 200-barrel well was considered a fortune. Naturally everybody wants a good well and when 2,000-barrel wells can be obtained, nothing short of that will seem to satisfy. But a little careful thought and reflection will convince the practical oil man that the big spouters, in the long run, are not worth much more than the average steady producer. A well that will start off at 200 barrels, or even 100 barrels, has promise usually of a much longer life than the spouters and gushers. The Kern River producers with their 100 and 200-barrel wells and 500 feet of rich oil sand need not worry about the final outcome.

It is true it costs less to produce 2,000 barrels from a flowing well than from ten 200-barrel pumpers, but the results in either case are so much better than can be obtained from any other like investment of capital, that the man should consider himself extremely fortunate who can feel sure of getting from 100-000 to 150,000 barrels of oil from an acre of land, even though it takes him twenty years to get it out. The main thing is to know that you have the oil in the ground; the getting it out will come easy and prove most remunerative.

The greatest injury to the oil industry in California today is from the anxiety of the producers to get their product on the market regardless of conditions. The man with good oil land can get rich faster for the next ten years by sitting down quietly and letting the oil remain in the ground than by pumping and selling it at 20 cents a barrel. Oil is a staple product, as staple as flour. The demand for it is increasing at a rapid pace. The supply for the future is already causing the sellers of it great concern. The price is bound to advance and oil which is a drug today at 20 cents will be eagerly sought after ten years hence at ten times this price. Whether your wells produce ten barrels a day or ten hundred, hold on to your land. Nature charges nothing for storage. The future will bring a full recompense.

### Our Special Editions.

The special editions which this paper has issued from time to time have proven most satisfactory from every point of view. Not a week passes that we do not hear from them. The greatest hits were the Wyoming and the Coalinga editions. Only the past week the last copy of the Wyoming edition was sent out, an order coming from Omaha, Neb., for 200 copies. The Coalinga edition had a much larger circulation and the demand for it is growing every day. We expect to make the special Sunset-Midway-McKittrick edition now in process of preparation equal, if not superior, to any ever issued and we anticipate a tremendous demand for it. Those desiring advertising space in this edition or extra copies of the paper should place their orders at once.

## Excursion Visits the Utah Asphaltum Fields.

An excursion consisting of twenty persons left Ogden a few days ago to visit the asphaltum oil fields out on the Southern Pacific about eight miles due south of Roselle and twelve miles from Promontory on the edge of the Great Salt Lake, says the Ogden Standard.

Following constituted the party: F. A. Schwartz, W. L. Watkins, J. M. Zinn, F. J. Hendershot, M. J. West, T. E. Black, S. S. Smith, Harry Wells, J. C. Gasberg, G. L. Diefenbaugh, L. R. Heffner, M. Gilles, W. D. Pyper, H. B. Stratford, A. J. Chamberlain, Dr. L. H. Berg of Brigham City, W. F. Culmer of Salt Lake City, Lorenzo Warren of North Ogden, and Lee Garrett of Promontory.

The asphalt seepage, so far as they have been discovered, are all in the lake. The principal seepage, the one that has long been known—is about 300 feet out from the edge of the water, directly west from the nearest land. It was from this point that the party—either wading in high boots or riding on a raft—explored the northwest wing of the lake and examined the prospects. The asphalt seepages can be readily traced for a distance of a 1,000 feet to the northwest and as far to the southeast from the starting point, the water being from twelve to eighteen inches in depth. About 800 feet from this point is a large seepage that has been recently discovered, where tons of the asphalt has boiled out until it stands above the water. The entire 2,000 feet on this line—northwest by southeast—is interspersed with small asphalt springs and seepages. Thousands of places you can pick up from two to five or ten pounds where it has come up through the sand, still fast to the sand, with the asphalt spangled out and floating in the water like black sea weeds.

This asphalt from analysis made just as it came from the pipe that stands on the original discovery, gives 54 per cent asphalt and 43 per cent fine oils.

## The Peerless Enters the Coalinga Field.

Everybody knows the Peerless Oil company, a company that has justified its name by its record. It stands at the head of the list and its stock sells readily at \$14 a share. The Fulton Oil company is a child of the Peerless and its stock is held at \$5 a share. The entry of such a company into the Coalinga field at the present time will naturally be regarded with more than ordinary interest. The company has secured by purchase the NW¼ of section 22, 19-15, immediately north of the Sauer Dough and Caribou companies, and will begin development work at once. Those who know John M. Wright will know what is meant by development work. Mr. Wright says he feels certain that this purchase will make the Peerless stock double in value. The land is unquestionably good, and with an energetic, practical and, above all, an honest, board of directors to manage the affairs of the company the Peerless stockholders are to be congratulated.

### Stockholders' Annual Meeting.

The stockholders of the Peerless and Fulton Oil companies met at their offices in the Mills building on Monday and adjourned until the 26th inst. on account of the absence of some of the heaviest stockholders. The directors will be elected at the adjourned meeting.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Oct. 13, 1903.

C. A. Canfield, on section 25, spudded in on the 12th inst.

California Oil Fields Limited spudded in on its No. 15 the last of last week.

Commercial Petroleum company's No. 4 rig has been finished and drilling will begin this week.

The Wabash Oil company is getting ready to rig up for No. 2, located east of its present well.

The Roberts Oil company decided to go deeper with its well in spite of the good showing it had at 800 feet.

The Pennsylvania Petroleum Mining and Development company is now at work on its first rig on the SE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of section 12.

Mr. W. A. Sleep purchased from A. E. Webb sixty acres in the S  $\frac{1}{2}$  of the SE  $\frac{1}{4}$  of section 14, 20-14, and sold the south thirty acres of the same to Messrs. Baker & May.

The Pacific Coast Oil company is adding two iron tanks for storage one each for station 2 on section 27, and one for station 3, on section 28. The tanks are of about 3,000 barrels capacity.

The NW  $\frac{1}{4}$  of section 24, 20-14, owned by Mr. K. Smith of Fresno, has been leased to the Associated Oil company. Just how soon work will begin in drilling wells cannot be learned at present.

Mr. R. Craig has sold to Mr. J. M. Hendrickson the whole of section 14, 19-15. This section is located within a mile of some of the California Oil Fields Limited's best wells and may prove to become valuable land.

The Oil City Petroleum company will put a number of its wells on the beam instead of pumping them by means of a jack, and thus it hopes to increase its production considerably. Its No. 8 well is nearly finished.

The New San Francisco Crude Oil company is hauling lumber for its No. 3 rig. The company is now delivering its production to the Pacific Coast Oil company, its contract with the West Side Pipe Line having expired.

Two new companies have been organized on twenty acres each in the NE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of section 14, 20-14, known as the Grass Valley-Coalinga Oil company and the Giant Oil company. The former company expects to begin work in the immediate future putting down its first well.

For one illustration how companies are pushing wells down in this field may be cited the Hanford Oil company. Last May this company had but two wells on its eighty acres, to-day it is steadily pumping four wells, is drilling one, and is rigging up another. It has tripled its storage capacity, and has added much to facilitate its progress.

The companies that have new rigs not yet at work or in process of building are as follows: California Oil Fields Limited, Hanford Oil company, Commercial Petroleum company, Elzumo Puro company, El Capitan Oil company, New San Francisco Crude Oil company, Esperanza Oil and Gas company, Pennsylvania-Coalinga Petroleum company,

Section Seven Oil company, Pleasant Valley Farming company, Pennsylvania Petroleum Mining and Development company, R. C. Baker, Union Oil company and Wabash Oil company.

R. M. D.

### Rockefeller's "Personal Comfort."

"There are so many men who hunt a little, fish a little, drink whisky a little and only attain a little success in life, and all for the lack of a little religion. The personal comfort that religion has been to me is such that I feel I would like to go on the lecture platform and tell people about it," said John D. Rockefeller to a Cleveland pastor the other day. There is one man who hunts, fishes and drinks not at all, who has attained stupendous financial success in life, but whom religion did not teach to be honest, or to obey the law. The whole history of the establishment of the Standard Oil company was a history of dishonesty, double-dealing, corrupt politics and defiance of law, and John D. Rockefeller personally engineered all these wrongs. Now that the giant monopoly is established, it is rich enough to afford to be honest, and it does nothing worse now than to enter into secret bargains with the railroads to violate the interstate commerce law, to use the power of unfair competition ruthlessly to bankrupt any of Mr. Rockefeller's Christian brethren who may venture to go into the oil business, and to retain one or two representatives in the United States Senate. This is, comparatively speaking, almost honest, and the sense of this approximate honesty, bulwarked behind the spoils of past dishonesty, is doubtless a large part of the "personal comfort" which religion has brought to Mr. Rockefeller.

"Personal comfort" is a fine thing, but common honesty is a much better thing. Any man whom religion will not teach to be honest, would better seek "personal comfort" in cultivating a hard heart, rather than by hypnotizing himself with his religion.—Fresno Republican.

### Forty-four Jersey Companies Fail.

Since January 1, 1903, no less than 44 New Jersey corporations have been placed in the hands of receivers who are now busy trying to straighten out their tangled affairs.

The authorized capital of these corporations aggregates \$80,340,000. Their liabilities are \$17,272,333.51, and their assets are estimated at \$1,564,680.28, but there is little doubt that this is an over estimation, because land and personal property, in some instances, are entitled among the assets at a valuation ridiculously larger. For instance, the White Mountain Paper company, capitalized for \$15,000,000, has liabilities amounting to \$11,944,000, and its assets are reported as not known.

### World's Water Power.

The theoretical water power of the world has been thus roughly computed by John Clarke Hawshaw, president of the Institution of Civil Engineers. Assume a depth of 10 inches of rainfall to flow off each square inch of land surface, the mean height of which may be taken as 2,250 feet above sea level. Then the water from the whole surface falling through the mean height would give 10,340,000,000 horse power in perpetuity. Our present yearly output of 225,000,000 tons of coal would give that horse power for only a little over half a day.

### Uncle Sam a "Filer."

Southern California will be one of the earliest recipients of advantages from irrigation under government auspices. Uncle Sam, in the capacity of an ordinary seeker for water in this semi-arid land, has "filed" on some water in the Colorado river, says the Los Angeles Herald. The difference between his filing and that of a common mortal is found in the magnitude of the operation. It is a matter of 4,000,000 miner's inches that Uncle Sam proposes to take from the river, as stated in the notice that he has posted, according to law, at "a point of rocks known as Black Point, in California, county of Riverside."

The purpose of this tapping of the vast volume of water in the Colorado river is outlined thus: "The water will be diverted by means of a diversion dam and will be conveyed through canals, flumes, wooden, iron, steel and cement pipes to the place of intended use." An idea of the magnitude of this work is given in the statement that the "size of the canal will be 100 feet wide on the bottom and 10 feet deep."

When that project is completed an area of land now worthless without water, but of great agricultural richness, will be capable of sustaining a vast population of thrifty Americans.

### Western Pacific Feeders.

There is further news affecting Bakersfield in railroad circles. A civil engineer attached to the Western Pacific, and fairly well acquainted with the plans of that company, states that feeders are projected to cover practically all of the State north of the Tehachapi range. The main line will come down the Sacramento to Stockton where it will connect with the Tesla road, which at present terminates in the hills back of Livermore. The gap between this point and Oakland will soon be closed. A line will be sent up the Santa Clara valley to tap that rich fruit producing region, another will come south to take in the wheat fields of the San Joaquin, the raisin vineyards of Fresno, and the grain, fruit and stock country further south. It will go to Bakersfield, not only for the traffic in the natural productions of that locality, but for the same purpose that all railroads must have in view, the acquiring of the fuel, which the operation of the road makes compulsory.

Within a very short time, active work in grading and laying steel on the main line is expected to begin at Stockton. A portion of the grading has already been done in Alameda county.—Bakersfield Californian.

### The Pacific Oil Transportation Company.

The Pacific Oil Transportation company, Captain W. T. Matson president and George T. Cameron general manager, has gone into the Coalinga field with the procession. This company took an option on thirty acres of the Caribou land some time ago and during the past week it has secured a controlling interest in the Commercial Petroleum company operating on section 31, 19-15, on which are two completed wells producing not less than 500 barrels of light gravity oil per day. The Matson people have been stockholders in the Commercial company for some time and have become so well satisfied with the prospects that they have decided to secure the control of the company. The company has let contracts for additional wells.



# Salt Lake Asphaltum Beds.

## The Salt Lake Herald Gives an Interesting Description of Them.

The recession—well nigh unprecedented during the last two years—of the waters of the Great Salt Lake has uncovered some interesting geological formations on the north shore of that body of water. The find is of especial interest, being a great deposit of asphaltum with indications of oil of a very fine grade, says the Salt Lake Herald.

For many years it has been known that there was a locality on the north shore of the lake where a soft tarry substance, oozing from fissures, was to be found in small quantities and that this same substance in dried form was found scattered along the lake shore. Locations were made, but no development work was done worthy of the name, and even till now there has been practically no exploration of the district. The lowering of the lake bed, however, has uncovered a considerable strip of land and has reduced the water's depth to a few inches where before it was so deep as to be over a man's head. Recently the entire district has been located as placer land on account of this black, paint-like ooze.

The locations are made by many different persons. So far as known the only corporation which has become interested is the Royal Oil company, a California concern, which has some land there and which recently sent an expert to examine the field and to report on it.

During the irrigation congress a few barrels of the product were exhibited at the county fair and the interest created by this and other agencies was so great that a week ago a party of gentlemen, mostly from Ogden, went out to the place for an examination of the land. But few of the excursionists were financially interested in the locality, but all seem to be enthusiastic in their reports of what they saw and the possibilities in store for development.

The district of particular interest extends for about 2,000 feet northeast and southeast at a bend in the water line about eight miles due south of Roselle, on the Southern Pacific. The strip is about a third of a mile wide and is for the most part under water to the depth of from three to eighteen inches. Above the surface of the shallow water appear innumerable black points, while in a few places are larger islands, which have been gradually building up as the thick, gummy substance oozed up from the bottom of the lake.

In one of these larger islands a pipe one inch and a half in diameter has been sunk to a depth of about sixty-five feet. From the top of this pipe there is a constant ooze of sticky black substance, which has been subjected to chemical analysis and shows 54 per cent liquid asphaltum and 40 per cent fine oils.

Aside from the constant ooze from the pipe, there are several good sized springs which are constantly sending up this stuff from the strata below the lake bottom. Some of them have builded little mound-like islands, while others are discharging the fluid into the waters of the lake, which is blackened for a considerable space. As the oil gradually distributes itself over the surface of the water

and the sun shines down upon it, all the prismatic colors are reflected, making a remarkable sight.

J. M. Zinn, M. J. West and T. E. Black have located the property on which the principal "oozes" are situated, and others have located the shore for miles, there being probably twenty Ogden and Salt Lake men among the locators.

The theory of these gentlemen is that the asphaltum is a residue of the oil which exists in great quantities under the surface at considerable depth and that a portion of the liquid is forced up through the crevices, the sediment accumulating year after year and composing the asphaltum beds.

to 30 cents per gallon and the carefully separated hard 'gum asphalt' about \$40 per ton, all at the spot and with the quality of refinement, which is not expensive and not at all difficult.

### John Eaton Talks of California.

John Eaton, president of the Oil Well Supply company of Pittsburg, Pa., arrived in the city yesterday on his way to San Francisco, from which city he will sail for the Orient October 23rd, says the Los Angeles Herald of the 13th inst. He will be in the city until the end of the week, making his headquarters at the Angelus.

John Eaton is a veteran oil man, having followed the supply business since 1862. "At that time," said he, "a set of oil tools weighed about 300 pounds. To-day a set rarely falls short of 3,500 pounds. Oil machinery, like everything else, improves with the times, and what was considered a great piece of machinery ten years ago is to-day fit hardly for the junk shop. It's really marvelous—man's inventive genius.

"What do I think of California as an oil-producing state? Well, I believe you have



Showing an Oil Spring in Salt Lake.

From this it is reasoned that the sinking of oil wells would bring a flow of valuable oil having especial values as fuel oils. Aside from this the substance as it now exudes from the earth is valuable. A number of the persons interested have had an analysis made, which show the same general results. One made by a distinguished Milwaukee chemist, besides giving the proportions of asphaltum 56 and of oils 40, together with other exhaustive data, concludes as follows: "The crude substance can be used in crude form as an excellent lubricant for common vehicles, also as a black paint if thinned with some turpentine. Its very preservative nature makes it excellent for the protection of wood as planks, posts, ties and the like. When used in this way it must be liquified by heating. After the oil has been nearly all distilled off the crude substance left may be used for all purposes to which asphaltum may be put and is especially adapted for the manufacture of hard "rubber" articles, also as a varnish for iron columns, etc. The crude substance being higher in percentage of gum asphalt in comparison to others, will bring about \$8 to \$10 per barrel of fifty gallons; the oils from 10

enough of it to answer all demands for all time. Your supply is practically inexhaustible. This fact is being demonstrated every day, as the increased consumption calls for additional supply. There is no trouble filling the demand, is there? No, and there is not likely to be.

"Oil is not used very much in the east for fuel purposes for the reason that coal is so cheap there. Not but what our oil could be used for fuel if necessary, as I do not consider it any more dangerous than California oil. The only difference in the two products is that the eastern oil contains paraffine while the California oil contains asphaltum.

"The oil business all over the country is much better to-day than it has been at any time for several years. There was quite a depression in the business a couple of years ago. In the last three years the consumption has vastly increased and this has been the means of improving the situation very materially."

The speaker remarked that California is using a great deal of oil well machinery, in addition to large quantities of tubular goods for engines and boilers and other machinery for sinking artesian wells.



**Work to Begin on the Bakersfield-Ventura Road.**

The Bakersfield-Ventura Electric Railway company will begin construction work next Monday, says a Ventura special. An engine and ten cars have been purchased from the Colorado Midland road for use in construction work. The ties are now at Hueneme and rails will arrive next week. A graders' camp has been established at Oxnard.

Engineer Burson will accompany a government official over the surveyed line through the Pine Mountain reservation on Tuesday. The government has accepted the electric company's map. This trip is merely to check it up, and right of way will be formerly granted upon the agent's report.

**Some Large Salaries.**

The New York Herald prints some interesting figures of the salaries paid by the great industrial companies of the United States to their chief official, or, as in the case of the Standard Oil company, to the head of its legal department, Mr. S. C. T. Dodd.

A. J. Cassatt, president of the Pennsylvania

country. Including commissions he is understood to receive \$250,000 a year. It is not known what the salary of John D. Rockefeller, the president of the Standard Oil company, amounts to. If there is any other person in the United States who receives as large a salary as Mr. Dodd, it is not generally known.

An incident which is typical of the conditions which bring an easy flow of money to the hard-worked farmers of the oil belt was witnessed in Marion, Ind., recently. A crippled, withered old Irishman came hobbling down the street, clutching in his hand a slip of paper. Every few minutes he would stop and look at it with a smile of satisfaction. As he approached an acquaintance, who probably had been a friend in need, the old man walked up and displayed with much pride a check for \$118. This was his monthly royalty from a couple of wells located on an acre of his property. "Pretty good, Uncle Tommy," remarked the acquaintance. "Very poor this month, very poor," mumbled the old man as the weather-beaten face fell and he bobbled off to deposit the check to his credit. A stranger would almost unconsciously have

shares of stock present out of a total of 60,000.

The old board of Directors were re-elected. The board being as follows: T. G. Hart, president; A. Hall, vice-president; Jacob Clark, secretary; Sam Shannon, manager; L. L. Cory.

The secretary's report showed as follows:

Cash on hand October 13, 1902.....	\$2,335.91
Received for oils sold .....	13,416.88
" " royalty .....	578.55
" " board of tank builders.....	27.85
" " casing sold.....	567.50
" on the company's notes.....	7,500.00

Total receipts..... \$24,426.69

**DISBURSEMENTS.**

Operating and field expenses including labor, repairs, hauling, boarding-house and barn expenses and superintendent's salary.....	\$10,493.25
Insurance (\$60.00), taxes (23.60), water bills (928.46).....	1,012.60
Machinery, tools, casing, tanks and pipe.....	8,157.59
Lumber bills (1,590.43), pumping wells (480.00).....	2,070.43
Office expenses, including salaries of officers, per diem to directors for attending meetings and special expenses incurred in making contracts for sale of oil.....	1,548.72
	\$23,262.05

Balance cash on hand..... \$1,164.64

The company owes current bills for labor, supplies, casing, pipe, etc., about .....	\$6,000.00
Borrowed money.....	7,500.00
	\$13,500.00

Less cash on hand and oil sold and not paid for, about .....

Present indebtedness, about..... \$9,300.00

The company's personal property and equipment in the field, consisting of drilling rigs, casing, tanks, engines, tools, houses, horses and wagons, at a conservative estimate is valued at \$18,000.

The company has nine producing wells and is making regular and daily deliveries of oil to the Standard Oil company.

JACOB CLARK,  
Secretary.

Mr. J. Fennell, the general purchasing agent of the Armour Packing company, is said to have bought 50,000 barrels of Beaumont crude petroleum oil now stored in tanks at Spindletop, the consideration not being exactly given, but being in the neighborhood of 50 cents per barrel. Mr. Fennell is quoted by the Beaumont Journal as saying that the great packing company is storing oil at Fort Worth preparatory to the installation of oil-burning apparatus at their Fort Worth plant.



An Island Formed of Asphaltum in Salt Lake.

railroad, draws a larger salary than any other railroad official in the United States. He is credited with receiving \$75,000 a year. A number of other railroad presidents receive \$50,000 a year each.

In the matter of salaries the industrials appear to be more liberal than the railroads. S. C. T. Dodd, the general solicitor of the Standard Oil company, probably receives as large a salary as any other person in the

handed the old man a quarter out of sympathy for his appearance, but there are a few who know of the snug fortune realized from oil without the turning over of his hand and now to his credit in bank.

**The 28 Oil Company.**

The stockholders of the 28 Oil company held their annual meeting the 12th inst. at Fresno, at which meeting there were 54,637

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# Coalinga Forging to the Front.

## The Town and Oil Fields Making Rapid Strides.

The changes that have taken place in the past few months, both in the town and the oil field of Coalinga, are surprising when one stops to think of them.

When the editor of this paper first came to Coalinga in January, 1901, there was a boom on in this field and a little later it died out, to a great extent, on account of the lack of transportation facilities for the oil produced. A number of the companies shut down, but a few of the pluckier ones kept on developing, and struck oil in large quantities in parts of the field that had been looked upon as of no great value. These same portions of the field are today the largest producers. As the number of wells increased and the extent of proven territory became greater, the field was brought to the notice of the Standard Oil company, and when they built their pipe line from Bakersfield to Point Richmond, they arrived at the conclusion that this field was to be of enough importance for them to build a branch pipe line to it. This was done and has been a wonderful help to the field.

When the Standard connected this field with their main line, Coalinga was brought to the notice of oil men all over the country. They began to turn their eyes in our direction.

The next important incident that added to the interest of outsiders was the strike made by the California Oil Fields Limited company on section 21, 19-15. We refer to the No. 2 well on that section. This well, when first struck, flowed in the neighborhood of 2,000 barrels a day, and is still flowing at a great rate. Next came the strike of the Section Seven Oil company on their property on section 7, 20-14. No. 1, when perforated and opened up, made a fine showing, but no one ever dreamed of its being as good as it has since proven to be. It started in to flow at the rate of about 1,000 barrels a day and in a short time was doing nearly 3,000 barrels. It has been flowing at a rate of 2,000 barrels a day or better for weeks past. This capped the climax, and every week a number of prominent oil men from all over the State visited this, the largest flowing well in the State.

One prominent oil man from Bakersfield recently told the writer that he always said that Kern county and its fields was the most productive and had the largest wells in the State, but he added, "I take my hat off to Section Seven, No. 1."

The value of land in the west side portion of this field has advanced by leaps and bounds and land that could be bought three months ago for \$150 an acre and less, is now valued at from \$500 to \$5,000 an acre.

Recently there has been a number of new strikes and today Coalinga rivals Kern as having the largest amount of proven territory.

The extent of this field cannot be estimated by even the most experienced oil men, and we join with those who have made the statement that this field was the greatest in existence, and say that we believe that this statement is positively true.

The town has shared the recent prosperity of the field and new buildings and enterprises are the order of the day. The field is only in its infancy, and the town must necessarily grow with it.—Coalinga Oil News.

### Supply Decreasing.

The future of the crude petroleum business continues on a speculative basis, for although efforts are being made to extend the producing territory, few wells of significance are being brought in, says the Pittsburg Leader. The wells in the territory producing Pennsylvania oil have been able to yield about an average of 87,000 barrels daily for some months. The consumption of this grade of oil, in spite of the quantity of Ohio oil used, is averaging about 2,500,000 barrels a year greater than the production. In consequence, where the pipe lines had a surplus of 13,000,000 barrels of Pennsylvania oil three years ago, now they have less than half that much. Another three years of a similar experience would wipe out the accumulated surplus, and leave the world dependent upon the daily supply of the wells.

### Advance in Petroleum.

A double advance in crude oil prices within a week has set oil men thinking. The second advance has put Pennsylvania oil at \$1.62. This is only six cents below the highest figure quoted during the last three years. On the morning of April 1, 1900, oil opened at \$1.68, but before noon that day there was a cut to \$1.63. For a year it declined and for a long time the price remained at \$1.50. Then came an advance, which in turn was followed by lower prices, and now comes a series of advances which, it is believed in the oil trade, will culminate in record-breaking figures in the near future. Relying on this expectation operators are not rushing in to sell their balances at the present prices.

The demand for both crude and refined oils is increasing, while the supply is decreasing. Petroleum is being constantly adapted to new uses, and so successful have been the hundreds of experiments to which it has been subjected that the enlarged demand does not seem strange. On the other hand, Texas and Kansas are not proving the producers which the operators expected during the boom days. The eastern fields are practically exhausted so far as new production is concerned, for very little territory is being discovered where the better quality of oil is found. The limits of the Pennsylvania, Ohio and West Virginia territory have evidently been located, and there is little hope for a larger production in those fields. Many of the old wells are rapidly declining while few new ones of any size are being brought in. A well of five or ten barrels' daily capacity is welcomed now, where 100 barrels was considered only a moderate production a few years ago.

On first thought it is not easy to understand how the consumption of petroleum can be increasing in the face of the marvelous extension of gas and electric lighting. It would

seem as though the use of gas and electricity were crowding out oil at a rapid rate, but while this is true of certain localities, it is not true of the country as a whole evidently, for petroleum is going into consuming channels now as never before. Somewhere there is a bigger demand for oil than ever, though in our immediate community it may be almost entirely superseded by other illuminants.

The export table shows that exports of the mineral oils for eight months of this year were as great in money value as in the year previous, though smaller in actual gallons exported. But the falling off in quantity exported was due to the high prices and these in turn to the increased demand at home, so that the situation is plainly one of greater use of mineral oils in all forms especially in this country. On the other hand the failure of supply is more and more noticeable as regards the higher grades. Two things seem certain: That the demand for petroleum is not destined to become less by reason of the substitution of other lighting and heating agents; and that unless new fields are opened up there is destined to be a very serious shortage in production.—Paint, Oil and Drug Review.

### Oil Men Are Getting Uneasy.

A strange commercial coincidence has come to light in the Kern River field. As has been known for some time the Standard Oil company has finally succeeded in getting their pipe line from the Kern River to their refinery at Point Richmond in successful operation, but as has been predicted many times by the press, the railroad suddenly finds it impossible to furnish cars to independent companies for shipping their oil.

Anyone familiar with the methods of the Standard Oil company knows that when this concern goes into a new district it has a thoroughly amicable arrangement made, as a rule, with the railroad companies. Whether the stringency in the car supply has been dictated by the Standard Oil company is not positively known, but the fact is that a large number of empty oil cars are constantly at the Standard Oil company's loading track near their tanks.

Another indication that the thumbscrews are being prepared for the producer, is the rumor that the Standard is only offering 17½ cents for oil, whereas a month ago the company would close contracts without a question at 20 cents. Taking all the above facts into consideration, it appears that the long-talked-of control of the market by the Standard is nearly an accomplished fact. The excuse given by the railroad company for the shortage in cars is that the company needs them for its own use; but it seems strange to a man up a tree that during the past two years the railroad companies have never found it necessary to rob the independent producer of his supply of cars in order to handle its own oil.

Of course the 10,000,000 barrels of oil purchased by the Southern Pacific Railroad company from the Associated Oil company would require a large number of cars to handle the contract, but there is no evidence in sight that the railroad company is moving any of its oil at the present time, but is rather storing it in its tanks recently erected on the Associated property. At all events the coincidence of the scarcity of tank cars and the successful working of the Standard's pipe line system is striking, and does not look particularly bright for the independent producer.—Point Richmond Record.



### Fresno's Oiled Streets.

Fresno county has more miles of oiled roads than any other county in the State, and Fresno city has more miles of oiled streets than any other municipality of which we have the statistics. We have before spoken of the good results obtained in Fresno county and city from the use of oil, and it will doubtless be of interest to our readers to know just how the thing is viewed by those who are best qualified to judge results.

Trustee O'Neill, who is chairman of the committee on streets, and who has studied the matter as intelligently and thoroughly as any man in the State, thus speaks of Fresno's streets to a Republican reporter:

"Our streets are in first-class condition, except for some chuck-holes here and there and these chuck-holes are being filled in as fast as possible. The roadways are ready to receive the coating of oil. Those streets that have been recently graded it is the intention to oil very thoroughly after they have been recrowned. They have in some cases gone flat and it will be necessary to run the grader over them again before applying the oil.

"Oiling the streets is no experiment here any more. It is a complete success and we know just how to handle it. Of course there are some people who are inclined to criticize us because we did not give them an asphaltum pavement just by sprinkling oil on the ground, but such criticisms are unjust, as should be understood. We never intended to do anything further than to lay the dust and keep it down and we succeeded in that, as I think everyone will admit.

"In our method of filling the chuck-holes we use oiled earth. This is tamped down into the hollow and then, when we run the sprinkler over that roadway later on in the year when the oil begins to be delivered, the oil will be sprinkled evenly all over the street. Thus the chuck-hole that was filled gets as much oil as any other part of the surface."

Everyone who has had occasion to go to the Santa Fe station has probably noticed the system of paving adopted by the railway company there. The old pavement of Corral Hollow gravel and oil has recently been renewed by running a smooth layer of residuum over it. Then on this sticky surface a layer of Corral Hollow gravel was strewed evenly. The result is a splendid pavement, equal in asphalt while lacking the slipperiness of the bituminous pavement. Of course it will not endure so long as asphaltum, but it is much cheaper. Mr. O'Neill proposes to lay a similar pavement at the junction of J street with Stanislaus, where the Blackstone avenue cars turn out of J.

"I think the electric railway people will stand part of the expense," said Mr. O'Neill. "We will attempt to bituminize the street there in a way. It is intended to take the red hardpan, some of which crushes easily and use that with oil to make a firm pavement, and we have every reason to believe that it will be successful."

### Mt. Shasta Oil Development Company in Berryessa Valley.

At the annual meeting of the Mt. Shasta Oil and Development company recently held, Dr. W. A. Harvey of 121 Geary street, was elected president, O. E. Clark of Napa, vice-president, Henry Lange treasurer, and the board of directors was made up of the gentlemen named, and Thomas A. Finnell, H. T. Finnell, and J. G. Johnson.

The company has penetrated three oil

sands in its wells in Berryessa valley and at a depth of a little over 400 feet from seven to eight barrels of high grade lubricating oil a day has been developed. The output of the well is worth about \$9 per barrel in San Francisco. The well will probably be continued to greater depth before a new hole will be started.

The company has two rigs bought and paid for and is practically out of debt, but its operations have been hampered by the lack of money. Efforts will be made to get sufficient money to get a couple of wells in Berryessa producing, after which exploration expenses can be met out of the returns of the wells. The Mt. Shasta company has a Standard rig on Sand Flat in Shasta county, and will resume work on its hole to prospect its Sand Flat ground, after its Berryessa property is on a paying basis.—Mineral Wealth.

### Star Petroleum Sells Out.

A Beaumont special says an instrument has been filed with the county court, indicating that the Star Petroleum company, one of the most important oil companies operating there, has sold out, lock, stock and barrel, to H. A. Phillips, a Pittsburg banker. The instrument recites that the transfer includes everything except the charter and franchises to do business, the office furniture, stationery and books. The consideration stated is \$300,000. W. E. Brice is the head of the Star Petroleum company, and the deal was made between him and W. P. Rogers, who represented Mr. Phillips. The Star company had extensive holdings in Saratoga and Sour Lake, and had in construction pipe lines and other facilities for handling oil in the Saratoga territory.

It is stated that Mr. Phillips is a close personal friend of W. L. Mellen, vice-president and principal owner of the J. M. Guffey Petroleum company, and that the last-named concern will operate the newly-purchased property for Mr. Phillips. It is announced that the Star Petroleum company will continue in business as a producer and seller of oil.

The PACIFIC OIL REPORTER \$2.50 per year.

### Trying to Get Better Service.

Samuel Shannon circulated a petition in Hanford Friday which was signed by all the principal business men here, asking the Southern Pacific Railroad company to put on a train service between Hanford and Coalinga, such as the business of the community demands. The great oil field of the west side has been laboring for years under a very bad and inadequate railroad service. The trains that carry passengers from Hanford to Coalinga also have carried freight, and when a business man embarks here in the morning for the oil country he has no idea when he will be able to reach Coalinga. The service is the same coming from Coalinga. Mr. Shannon left there Thursday at about noon, and with him were quite a number of other people coming to Hanford and going on to Fresno and elsewhere. The train succeeded in reaching Hanford after 9 P. M., and the distance is forty-five miles. Such condition of things in this day and age is becoming unbearable. If there were no railroad line to Coalinga it would be different, and people would be riding back and forth and doing business by horse-bide express, making the distance one way in at least five hours, but now it takes about nine hours by the abominable train service of the Southern Pacific, and we will venture the assertion that of the whole Southern Pacific system not another forty-five miles of road returns to the company the profit that the road between Hanford and Coalinga does. The fact that the railroad service is so poor between these points, while trains are run between Lemoore and Goshen at such frequent intervals and without accommodating anybody in particular in some instances, makes many of the people here think that the Southern Pacific could as well expend some of its energy in sending a purely passenger and mail service down to the oil country and back a little ahead of ox-team time and thus "put down the rebellion," that is certainly up now. The petition will be presented, and if the railroad people are wise they will grasp an opportunity and get to the front. These are times when men are up to snuff, and the managers of a great railroad system should smell the snuff and sneeze for the benefit of a suffering public.—Hanford Sentinel.



### We Build Galvanized Iron Tanks

For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank. Being situated near the Coalinga fields, we are in a position to make extremely low prices. We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

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**HANFORD**



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### Coalinga.

J. H. Elmore of Green Bay, Wis., has leased a forty-acre tract in the NW¼ of section 6, 21-15, of Smith & Bryner and will at once install a rig and begin drilling. This is the nearest drilling rig to the town of Coalinga and if Mr. Elmore is successful it will bring in another large scope of territory on the west side. Dr. J. L. D. Roberts of Monterey will be superintendent.

Suit was commenced Saturday at Fresno by M. Hansen, as assignee of J. G. Roselle, against the Chicago Limited Oil company and the Chicago Consolidated Oil company. The two companies work on the east eighty acres of the S½ of the NW¼ of section 6, township 19 south, range 16 east. Roselle entered into a contract with them on June 1st to work for them at \$6 a day. He now sues for \$570, with \$100 for attorney's fees and costs of suit.

#### Colusa.

The Washington-California well in Glenn county is down 2,350 feet.

The latest from the Williams oil well is confirmatory of the report we published last week, that another oil sand has been reached. The hole is full of salt water, which will have to be cased off before the exact amount of oil can be ascertained.

#### Devil's Den.

T. H. McGovern, a well-known farmer and stock raiser of Annette, Kern county, was in town yesterday. Mr. McGovern's home is about six miles south of the Devil's Den oil field and he passed that place Wednesday on his way to Lemoore. He informed the "Times" that Smith & Bryner, who have a contract with the Niagara company to sink 2,000 feet if necessary are now down 700 feet with their new well and are drilling day and night. He states that they have already procured the finest grade of oil ever discovered in this State and they are confident of finding it in larger quantities when they reach a greater depth. Mr. McGovern says that there is renewed activity in that field and that it promises to be the best oil belt on the coast. He stated that many oil locations that have been neglected for the past two years are being remonumented and that all lands showing oil indications are being eagerly sought after. Smith & Bryner have recently made a fortune in the Coalinga district and they have every confidence in the Devil's Den.—Visalia Times.

#### Half Moon Bay.

Smith & Savage who are drilling for the Pilarcitos Oil company, report work progressing rapidly.

#### Kern.

The Kern River has two additional rigs up and work is to be begun in drilling within a short time.

The Bear Flag Oil company has declared a dividend of 7 cents per share, amounting to \$7,042, payable immediately.

The Climax, which has three wells near Temblor, is making no effort to ship its oil, although each of the wells is still flowing slightly.

The United States Oil and Mining company on the NW¼ of 6, 30-22 has let the contract for building its derrick and a rig will be built within the near future.

Marion Aubury of the State Mining Bureau is compiling a map and directory

of the mines, oil wells and mineral resources of Kern county. The publication will be complete in every detail.

The Kern Oil company's stockholders held their annual meeting Monday at the office of Bender & Hewitt, Bakersfield, and re-elected the old board of directors for the ensuing year. The same officers were re-elected for the coming year.

The oil well which is being drilled near Hiawatha is down about 1280 feet. Report has it that gas is issuing from the well and that there is oil scum on the water. The company expect to put on a night force soon.—Randsburg Miner.

The Columbian Oil company, operating on 29, 28-28, has just developed a fine water well at a depth of 1,178 feet. The water is suitable for camp and boiler use. The company has also just begun the drilling of five additional oil wells.

The Arcola Consolidated, on section 2, 11-24, Sunset, has seven completed wells and running one string of tools. The company expects to drill seven more wells and be ready to contract for a large production as soon as the railroad is completed to Maricopa.

The Paraffine, under the management of A. W. Gilfillen, has finished pulling its casing and has abandoned what was once a promising well. A test was made of the oil, but it was found to be of insufficient quantity to justify pumping. The Paraffine will seek another location with a view to sinking another well.

The Bishop on section 13, 29-20, is about the only company now actively at work in the Temblor district, which at one time attracted so much attention from oil men. The Bishop is deepening its well, having had much trouble with a perforator being fast in the well, and a piece of collapsed casing. These difficulties have been surmounted and the well will be finished shortly.

J. A. Bernard has just returned from San Francisco, whither he went to see about securing the contract for oiling Lobos avenue. The work has not yet been let, but Mr. Bernard has assurance that he will get the contract. He proposes doing the work with the Fitzgerald tamper, which has been used so successfully in Fresno and elsewhere. Thirteen miles of road are to be treated.

Supervisor Bottoms has been doing much excellent work in his road district this season by the use of oil. He has had treated miles of road, and it is now possible to travel from almost any part of the district to this city. During the past three months there have been used about forty carloads of oil, or 8,920 barrels. The cost to the district has averaged about 37½ cents per barrel, including freight.

The Oriental, in the Midway field, a sub-company of the Oregon Midway, has just completed its first well on section 8, and the indications are, though the well has not been put on the beam, that it will be one of the good producers of that field, which has developed so many fine wells. The Oriental is in the same belt as the Oregon Midway, the Sioux, the Dayton and the Chanslor & Canfield property and the operators there have demonstrated that all that is needed in that section is transportation to develop one of the best fields in the county. The good reports from there

are responsible for the desire of the Standard to connect that territory with its big pipe-line and unless all signs fail the Midway producers will not be long without an outlet for their oil.

The Associated, which for the past several months has been drilling on the California Standard lease at McKittrick, and where some six wells are now down, is moving its outfits on to the Monte Cristo lease, just south of McKittrick property, and active operations will be begun there to develop that property. The Associated will sink some ten wells on the Monte Cristo property and already an immense quantity of supplies is being placed on the property to be used in the contemplated development. The new wells will be confined to the land immediately adjacent to the hills, the experiment of the McKittrick Consolidated having demonstrated that at any considerable distance out toward the plains the oil does not exist in paying quantities. So far all the good wells that have been drilled in that immediate territory are those that hug the range of hills and the Associated will not experiment in the undeveloped field, but will confine its operations to the proven belt. The Pacific Crude, on adjacent territory to the Monte Cristo lease, has just brought in its third well, which is reported to be an exceptionally good one.—Californian.

#### Los Angeles.

The gratifying results accomplished in Bakersfield and the adjacent country again call to mind the plan of using oil instead of water for laying dust in the outlying streets of Los Angeles. It is understood that the practicability of such substitution is fully recognized by the authorities, but approach to its realization seems to be nearly as slow as the coming of the new postoffice structure. The output of a fair proportion of the 100 water carts that soak the streets

of Los Angeles might be saved, and better and cheaper service secured by the use of oil as a dust preventive.—Herald.

#### San Francisco.

The United Railroads petitioned for a permit to construct and maintain a 60,000-barrel, or 2,520,000-gallon tank for the storage of crude oil on the premises bounded by Jefferson, Beach, Buchanan and Laguna streets. Petitions to use crude oil were filed also by the California Tallow Works and the Union Brewing and Malting company.

#### Santa Barbara.

The Lompoc Oil Developing company has purchased a standard steel wire cable with which to prosecute the work of drilling after clearing their present well of obstructions. The hole was down over 2,500 feet when the rope cable parted, and being in four-inch casing, renders it necessary to pull the casing out before clearing the well of the obstruction and securing the drill. If no further hindrances interpose, the coming week should see the work progressing properly, with every prospect of reaching the oil strata.—Lompoc Record.

The Union Oil company of California, which has the largest holdings of oil property in northern Santa Barbara county fields, is now at work on a steel tank of 25,000 barrel capacity, located at Graciosa station, on the line of the Pacific Coast railway. The company

#### Under-reamers For Sale.

We have for sale one or two each, of the different size Plotts Under-reamers in first-class condition. It will pay you to get our prices on these tools if you are in the market for under-reamers. Also we have one each of 5% and 7% Leidecker Under-reamers for sale.

THE LOMA OIL COMPANY,  
401 Conservative Life Building  
Los Angeles, Cal.

## COALINGA LANDS ::= FOR ::= SALE

The Land Department of this paper has some very choice bargains in the Coalinga field. In fact, we have about the only available tracts now offered.

One especially desirable 200-acre tract in the West Side Extension at a very low figure.

We also have for sale a developed property on the West Side. This is a very desirable bargain.

Write for particulars.

Land Department,  
Pacific Oil Reporter,  
San Francisco.



has also started the construction of a pipe-line to tide-water, the course of which will be from the Parisima and Lompoc wells to Graciosa, across the country through the northern part of Todas Santos and along Casmalia creek, following the coast line to Point Sal landing, at which point there is thirty feet of water at low tide, and perhaps one of the finest small harbors on the coast. Well No. 2 of this company, which came in about a month ago at a depth of 2,800 feet, is now under the pump, and no sooner was the well disturbed than it commenced to flow. The oil is of a very light gravity, probably the best yet discovered anywhere on the field. Indications show that the well has seventy feet of oil sand, a remarkable deposit, and that they have not yet got through it.—Independent.

#### Summerland.

T. C. Holmes has leased the Samuel Wakeham plant of twenty-three wells and will set them pumping as soon as the Bureka pumping plant is started.

#### Ventura.

The Union Oil company has been taking up their pipe-line between Santa Paula and Ventura and giving it two coats of paint. This is quite an expensive piece of work, but is absolutely essential owing to alkaline conditions of the soil on which it was laid and after repainting it will last for a number of years.

#### Wyoming.

The annual meeting of the Wyoming-Utah Oil Development company was held in Evanston on Monday afternoon, as per advertised call. Of the million shares outstanding, 651,000 were represented at the meeting. The name of the concern was changed to the Wyoming Oil and Paraffine company and the same officers were elected with the exception of Wm. Lander, president, who is succeeded by J. R. Middlemiss.

#### Gas in Ventura.

The efforts of banker E. P. Foster to develop natural gas in the bed of Ventura river near the old mill, are turning out better than was anticipated when the work was inaugurated a month or so ago, says the Ventura Free Press. When the work was undertaken it was with the intention of trying to get enough gas to run the electric light plant. Nothing further was dreamed of. Already enough gas has been found to more than serve the original intention and the promoters of the scheme, who are also the owners of the present light and water plants, feel encouraged to keep right on with the work and this will be done. It has been known for years that gas was seeping from the ground in the location where the development work is being prosecuted, but it was never thought that enough gas could be gathered from the several acres of seepage and brought together to be of any account. Then Mr. Foster started in to see what could be done in the premises. He was encouraged after a few days of work and reported to the gentlemen behind the matter. They came up and investigated and also sent Geologist Orcutt of the Union Oil company to look over the field. Owing to the peculiar formation Mr. Orcutt reported

favorably on the gas outlook. Then well-boring rigs were put in and several holes sunk at various depths. One hole was sunk to a depth of 220 feet and, strange to say, along with encouraging gas finds a fine stream of salt water was struck, "as salty as ocean water," says Mr. Foster. There is gas in every hole sunk and gas everywhere, and Mr. Foster thinks enough of it can be gathered to do some good, while the men behind him are as sanguine as he. There is not enough as yet, however, for supplying the town, but this will make little difference in the building of the contemplated gas works. Gas will be manufactured for fuel purposes, from crude oil, and so cheap that the town's people will cease in the future to be frightened at the thoughts of wood bills.

#### Santa Fe Road Orders an Innovation.

The Santa Fe Railroad company has given orders for the construction, at several points along its lines, of a new style of oil tank that is expected to entirely supersede the steel receptacles now in use.

Engineers have discovered that the crude oil used in the engines contains a considerable percentage of asphaltum, and that, when allowed to stand on the ground for a short period, the oil penetrates to a depth of six or eight inches where the asphaltum hardens and forms a crust through which the petroleum cannot pass.

The plan is to dig circular pits to a depth of six or eight feet and then bank up around the edge to a height of twelve feet, thus forming a tank twenty feet deep. Once the oil has sunk into the surrounding earth there can be no leakage, and the oil from the surface of the tanks can easily be run into the engines by force of gravitation.

Careful investigation of the recent burning of the steel tank at Williams has convinced the railroad engineers that there is always great danger of the old style tanks being destroyed by fire. In addition to this the cost of construction is very heavy.

The largest of the new tanks will be constructed at Seligman and Flagstaff, two tanks of 50,000 barrels each being designed for each place. At Williams, Winslow and Ash Fork will be placed 25,000 barrel tanks, two at each of the points named.

All of the new tanks will be roofed over with lumber, covered with a coating of gravel. One hundred thousand feet of lumber has been ordered for the roofs.

Though the tanks will not be entirely fire proof, the loss will only be that of the oil in case a conflagration does occur.—Los Angeles Herald.

#### The Newspaper Man.

A newspaper man, if he is a good one, is supposed to know quite a good deal about the goings on in the community wherein he operates. It is his stock in trade to know things. He is the first at a dog fight or murder and he asks questions while others remain silent. By virtue of his occupation he is admitted behind doors which are barred to others, and his desire to get at the fact is nearly always seconded by the public. He knows the priests and preachers, the hod carriers and hookers. He can steer you to a "joint or joss house." He knows the houses of virtue and the haunts of vice. It is his business to collect information and to know what is going on. He denounces the vicious and defends the wronged and there is no doubt that his trenchant pen, by exposing vice, frequently prevents it.—Sisterville Oil Review.

#### Recent Patents.

The following recently granted patents of interest to the oil trade are reported expressly for the PACIFIC OIL REPORTER by J. M. Nesbit, Patent Attorney, Park Building, Pittsburg, Pa., from whom printed copies may be procured for 15 cents each:

Combined well boring and rock drilling machine, S. H. Powers, Stanberry, Mo.; No. 738,843.

Sand pump or bailer, M. C. White, Los Angeles, Cal.; No. 739,042.

Device for extinguishing burning oil wells and for collecting oil therefrom, F. N. Bell, Milford, Mass.; No. 739,377.

Casing spear, W. W. Stockton and Wm. Helfenstein, Bakersfield, Cal.; No. 739,454.

Deep well propeller-pump, J. M. Tillotson, Kinder, La.; No. 739,746.

Still for petroleum oil or hydrocarbon fluids, Watson Ryder and J. A. Qualey, Philadelphia; No. 739,757.

Oil well jack, Josiah Barrett, Bellevue, Pa.; No. 739,812.

Oil pump, O. L. Clark, McDonald, Pa.; No. 739,831.

Well boring machine, D. A. Harmon, Ingham, Ill.; No. 739,860.

Rope socket swivel, H. H. Krohn, Los Angeles, Cal.; No. 740,026.

Air-lift oil pump, J. P. Couse, Glendale, Cal.; No. 740,999.

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**September Field Operations.**

While the production of Pennsylvania oil made a gain of about 250 barrels in September, both Northwestern Ohio and Indiana registered a decrease. There was a large decline in wells completed in both the Pennsylvania and Trenton Rock fields, while new operations on the whole made a small increase. The Buckeye fields recorded a large decrease in the number of wells drilling.

There has been no change in the general situation for a number of months past. Operators are doing their best to increase the supply of high grade petroleum, but the results of the drill have thus far had but slight effect in bridging the difference between demand and supply. The advance of six cents a barrel in the price of Pennsylvania oil came too late in the month to have any effect on field developments.

September completed fewer wells than August, which so far holds the record of wells completed for the current year, and August was ahead of July, both in wells completed and new production. July completed fewer wells than June and there was a considerable drop in the amount of new production. Over 2,100 rigs and drilling wells were under way in the New York Pennsylvania, West Virginia, Ohio and Indiana fields at the close of September, and new wells throughout the month were completed at the rate of 51 every 24 hours, or one nearly every 30 minutes.

Wells completed in the sections producing Pennsylvania oil in

September were 32 less than in August, while the gain in new production was 255 barrels. At the same time there was a drop of 103 wells completed in the Trenton Rock oil fields and a decline of 558 barrels in the new production. This brought about a general decrease for both fields of 135 wells and 303 barrels new production. In spite of the slight increase of the yield of the new wells the runs of Pennsylvania oil for September are unusually small, showing that the wells in the older sections of the field were unable to maintain the present supply without a continual accession of new production.

The scarcity of new territory continues to be the general complaint, although there is a bare possibility of a large addition to the productive area through the recent discovery near Milton, in Cabell county. This strike has attracted considerable attention, but matters in that section are in a waiting attitude and operators appear in no haste to test the surrounding territory. The well is in an entirely new part of the field, although numerous tests have been made in that vicinity and turned out to be failures. The new strike may go the same way of its predecessors, and it may also open up a new source of our petroleum supply.—Oil City Derrick.

**Dividends.**

The Debenture Surety company paid its regular monthly dividend for the month of September of 5 cents per share on its issued capital stock at its office in the Rialto building, San Francisco, Cal., October 15, 1903.

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A Marion, Ind. special says: "The American Window Glass company, the American Oil and Gas company and the National Oil company have closed a deal with Pittsburg investors for leases on about 40,000 acres of oil and gas lands in five counties in the Indiana oil field. The consideration is given at \$2,000,000 cash. The new company announces that it proposes to spend \$1,000,000 in expanding the property and will drill 300 wells within the next year.

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Some speculators are anxious to get in on the ground floor, but there are others who prefer to climb porches.

Although a soft answer may turn away wrath, there are times when one derives more satisfaction from calling a man a liar.—Chicago News.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

**California Stock and Oil Exchange.**

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, October 14th:

CARIBOU.			
15 at	10		\$ 16 50
CHICAGO CRUDE.			
800 at	21		168 00
HOME OIL.			
900 at	80		720 00
700 at	80 (S 60)		560 00
500 at	80 (S 30)		400 00
100 at	80 (B 30)		80 00
100 at	82½ (S 60)		82 50
200 at	85 (S 60)		170 00
100 at	85 (B 60)		85 00
100 at	87½		87 50
300 at	87½ (S 60)		262 50
400 at	82½		330 00
300 at	82½ (B 30)		247 50
200 at	90 (S 60)		180 00
300 at	90		270 00
300 at	90 (S 30)		270 00
100 at	92½ (S 60)		92 50
100 at	92½		92 50
100 at	95 (S 90)		95 00
500 at	95		475 00
400 at	95 (S 60)		380 00
300 at	95 (S 30)		285 00
950 at	97½		926 25
300 at	97½ (S 30)		292 50
200 at	97½ (B 30)		195 00
400 at	100 (B 30)		400 00
600 at	100		600 00
100 at	105 (B 30)		105 00
100 at	105 (B 60)		105 00
20 at	105		21 00
INDEPENDENCE.			
5,000 at	18		930 00
JUNCTION.			
200 at	19		38 00
900 at	18		162 00
LION.			
1,275 at	04		51 00
MONARCH.			
1,500 at	50		750 00
MONTE CRISTO.			
200 at	75		150 00
OCCIDENTAL OIL.			
1,100 at	18		198 00
300 at	19 (B 10)		57 00
OIL CITY PETROLEUM.			

2,000 at	29		580 00
4,200 at	28		1,176 00
REED CRUDE.			
2,409 at	41		987 69
SOVEREIGN.			
850 at	40		340 00
SUPERIOR.			
1,500 at	06		90 00
STERLING.			
600 at	29		1,740 00
10 at	30		30 00
100 at	28		280 00
400 at	285		1,140 00
100 at	295		295 00
TWENTY-EIGHT.			
50 at	425		212 50
50 at	440		220 00
100 at	450		450 00

32,329 Shares	Amount \$17,841.44
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100 Shares Amount, \$250  
The monthly record of sales since January 1, 1903, is as follows:

	Shares.	Value.
January	267,019	\$255,202
February	322,443	219,358
March	199,908	151,982
April	236,268	115,571
May	401,454	154,386
June	154,720	117,928
July	74,594	71,890
August	181,478	119,231
September	146,123	74,455

**Stock Quotations.**

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma		1.40
Apollo		
Asso. Oil Co Stk. Tr.		
Certificates		.20
Aztec		.90
Bay City		
Bear Flag		
California Standard		.12
Caribou	1.00	1.10
Central Point Con.		
Chicago Crude		.21
Clairemont	.25	.40
Esperanza		1.50
Fauna		
Four		.67
Fulton	3.25	.18
Giant		.18
Hanford	130.00	139.00
Home	.95	1.00
Homestake		
Imperial		.18
Independence		.20
Junction		.18
Kern		5.50
Kern River	10.00	13.00
Lion	1.03	
Monarch of Arizona		.52
Maricopa		
McKittrick		
Monte Cristo	.73	.80
Nevada		.40
Occidental of West Va	.17	.20
Oil City Petroleum		
Peerless	13.50	13.75
Petroleum Center		
Piedmont		.09
Pittsburg		.35
Reed Crude	.41	.42
S. F. & McKittrick	2.75	
San Joaquin O. & D.		

Senator		.75
Shamrock		
Sovereign	.38	.40
Sterling	2.90	2.95
Superior	.05	
Thirty-three		
Toltec	.21	
Twenty-eight	4.20	4.40
Union		
United Petroleum		
West Shore	2.90	
Western Petroleum		
Wolverine		

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Estate of William B. Winn, deceased. Notice is hereby given by the undersigned, executrix of the estate of William B. Winn, deceased, to the creditors of, and all persons having claims against, the said deceased, to exhibit them, with the necessary vouchers, within four months after the first publication of this notice to the said executrix at the office of William H. Waste, attorney-at-law, 906 Broadway, Oakland, Cal., which said office the undersigned selects as her place of business in all matters connected with the said estate of William B. Winn, deceased.

MARIA ROSA WINN,  
Executrix of the last will and testament of William B. Winn, deceased.  
Dated Oakland, September 28, 1903.  
WILLIAM H. WASTE, attorney for estate, Oakland, Cal.

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9:30	A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.
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8:00	P. M.—OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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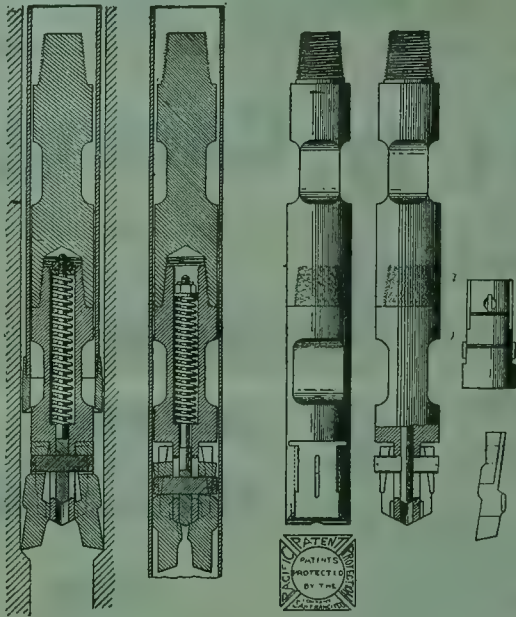
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These Maps are brought up to date and are absolutely correct. They are the only maps that show the condition of these fields as they exist to-day.

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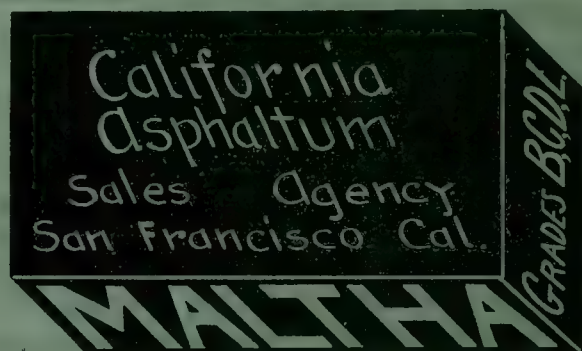
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Endorsed by the California Petroleum Miners' Association.

Vol. 4. No. 51.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 24, 1903.

Price 10 Cents.

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# PACIFIC OIL REPORTER

VOL. 4, No. 51

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 24, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

MRS. MARIA ROSA WINN, Proprietor.

U. M. THOMAS,

Editor and Business Manager

OFFICE AND EDITORIAL ROOMS

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Entered in the Postoffice at San Francisco, California, as second-class matter.

## PLACER MINING LOCATIONS.

In our issue of October 10th we noticed editorially the recent decision of the Supreme Court in the case of Chrismans vs. E. O. Miller and the Home Oil company, being a legal contest to determine the validity of certain conflicting mining locations covering the property of the Home Oil company in the Coalinga oil fields.

The land in question was located and claimed on June 14, 1895, by one Barieau and seven others, who on December 24, 1896, relinquished their claims to E. O. Miller. Barieau never went into possession nor did he do any assessment work of any kind. Miller, on December 31, 1896, executed and filed an abandonment and on the same date relocated the claim. The next day, January 1, 1897, the Chrismans filed a location on the same land, claiming that Miller's location was void. Miller shortly afterward went into peaceable possession of the land and began boring for oil. His efforts were successful and the first of the Home wells was soon brought in. After Miller had made an actual discovery of oil, the Chrismans again, on December 22, 1898, made another location, claiming under the discovery made by Miller. This location was made surreptitiously in the nighttime.

The contention of the Chrismans was (and this was the basis of their contest) that Barieau's location was valid, that Miller held as assignee of Barieau, and that he could not abandon and relocate on the same day, and that the land was vacant government land on January 1, 1897, when they made their location, therefore they were the only legal claimants to the land.

Other points, like the segregation of the quarter section into twenty-acre subdivisions, were brought in but the main contention was on the legality of Miller's occupation.

We based our editorial on a knowledge of the opinion gained from reading a brief outline of the decision printed in the daily press. Some who are of the opinion that the decision was not rightly interpreted have taken a contrary view of the effect of it. For this reason we have taken the pains to examine the original, written by Justice Henshaw, and filed in the office of the clerk of the

Supreme Court, to ascertain the exact points involved and to arrive at the true meaning and scope of the decision.

We will here state that we had arrived at the same conclusion months ago after a careful study of the law and the decisions already of record covering the same points. As stated in our article of the 10th, this decision is in reality an affirmation of the opinion of Judge Ross of the Circuit Court rendered in a similar case. It is the only reasonable and logical legal deduction that can be drawn, it seems to us.

The Supreme Court hold that Barieau's location was not valid, because "Barieau and his co-locators did not at the time of their attempted location, nor ever, make any discovery of mineral upon the land." The court say: "To constitute discovery the law requires something more than conjecture, expectation, hope, or even indications," citing 98 Fed. Rep., 673. Barieau had testified and claimed that he had made "discovery" because there were oil springs or seepages on the land.

The court upholds Miller's filing made on December 31, 1896, for the reason that Barieau's claims being invalid and the land being vacant he had a legal right to locate.

Of Miller's conduct in taking possession of the land and prosecuting work to a discovery, the court say: "One who thus in good faith makes his location, remains in possession, and with due diligence prosecutes his work toward a discovery, is fully protected against all forcible, fraudulent, surreptitious or clandestine entries and intrusion upon his possession. Such entry must always be peaceable, open and above board, or no right can be founded upon it." Citing Belk vs. Meagher, 104 U. S., 279; Atherton vs. Fowler, 96 U. S., 513; Nevada Sierra Oil Co. vs. Home Oil Co., 98 Fed. Rep., 673. "Such an entry was made by Miller on December 31, 1896," say the court.

The opinion was written by Justice Henshaw and concurred in by Justices McFarland, Van Dyke, Angelotti and Lorigan.

After a careful reading of it we are more than ever confirmed in our opinion of the law as clearly stated in our editorial printed in the issue of October 10th.

## A Rumored Sell Out.

It is rumored that the Southern Pacific and Santa Fe systems have combined in an effort to head off the Western Pacific railroad that was coming into the state through Beckwith Pass, down the Sacramento valley to Stockton and on to San Francisco, the consideration being payment of all the surveying expenses and \$2,000,000 in bonus. Gould is said to be behind the Western Pacific and willing to quit on these terms.

## Stock Market.

The local oil stock market the past week has been characterized by extreme dullness. The brokers are having a hard time to keep up interest, investors having abandoned stocks and turned their attention to lands. The leading stocks have remained firm and some have made an advance. Home almost dropped out of the trading, Independence taking the lead.

## EASTERN FINANCIAL DISTURBANCES.

The past ten days has witnessed disturbances in eastern financial circles not unlike the distressing times of '93. But with banks and trust companies going to smash in the East, the American Bankers' Association is holding its annual session here in San Francisco, and, apparently, its members, who represent the financial bone and sinew of the nation, are as little concerned about these failures as though they were in no wise connected or associated with the banking business. And well they may be, for while the insolvent institutions were styled banks and to a certain extent were performing the functions of banking corporations, a knowledge of their methods of doing business cannot fail to bring the conviction that the fewer of them, we have the better it will be for the general welfare of the country.

As stated in these columns last week, these failures and disturbances in financial circles are the natural outcome of too much prosperity. When times are flush and money is plentiful business methods are apt to become lax and vigilance is given over to indulgence, speculation takes the lead of investment, and the illegitimate becomes legitimate. But as the pendulum cannot always swing in one direction, so there comes an end to this kind of financiering and the return stroke is always sure to catch somebody napping.

The trust companies that failed were trying to bolster up some questionable scheme or other that a legitimate bank would never think of touching. The big Pittsburg bank with \$2,000,000 paid up capital and \$7,700,000 liabilities was trying to carry the over-capitalized Eastern Tube company. And so it goes. Whenever a bank or trust company diverts its capital and the deposits which are entrusted to its care into questionable channels it is pretty sure to come to grief.

But the general financial welfare of the country is in no wise imperilled. The government is in good hands, its finances are on a solid footing, and this weeding-out process is bound to come, and the sooner the better.

The failure of these institutions will serve to emphasize the virtue there is in honest, conservative business judgment in banking as well as in other business enterprises where public confidence is required.

## Better Train Service for Coalinga.

The Southern Pacific railroad has finally succumbed to public demands and will give Coalinga better train service. This will be good news to everybody having occasion to travel to and from that field. The new schedule, which went into effect on Wednesday, gives two daily trains to the Fresno county oil fields.

Train 27, mixed freight and passenger, passes Hanford at 9:15 A. M. Returning, leaves Coalinga at 1:10 P. M., passes Hanford 4:55 and arrives at Goshen at 5:45 P. M.

Train 63, connecting with main line trains at Goshen, passes Hanford at 9:55 A. M. and arrives at Coalinga at 12 noon. Returning, leaves Coalinga at 12:10 P. M., passes Hanford at 2:25, and arrives at Visalia at 3:05 P. M.



## Misrepresentations to Stockholders and the Public.

Several months ago the PACIFIC OIL REPORTER refused the use of its advertising columns to the Mt. Hamilton Land and Oil company because that company insisted on publishing statements that were not borne out by the facts. This company has its office in San Jose and owns several hundred acres of alleged oil lands in Fresno county. It installed a rig and drilling outfit nearly two years ago on a tract of land near Alcalde, a station about five miles west of Coalinga in Warthan canyon, and sunk a hole to a depth of about 275 feet, it is said, during which time it was engaged in selling stock on claims that were at wide variance with the truth. Last February, about the time the Esperanza company made its big strike, this company sent out a circular in which it made the claim that it was sinking a well "near the wells of the Esperanza company," when as a matter of fact its outfit was about nine miles from the Esperanza wells.

Recently a letter was brought to this office which contained statements that were misleading, and the name of this paper was brought in in a way that led the recipient of the letter to conclude that the PACIFIC OIL REPORTER would substantiate the statements made by the writer. The letter was written by the president of the oil company in question. On being shown this letter we promptly wrote the president asking him why he used the name of this paper in the way he did, and also why he represented that the lands of the Mt. Hamilton Land and Oil company were "located in the heart of the Coalinga district." His answer shows him to be a past master in the art of using the English language to convey a meaning that he did not intend. With reference to his use of this paper he says: "The intention solely was to refer the party to the developments in the Coalinga field, particularly on section seven." As the section seven, referred to, is about nine miles from the Mt. Hamilton well, the intention was obviously misleading.

The writer further says: "It is a fact that we are today drilling, and I can assure you that it will be but a matter of days before we will be at a depth where we will get oil if there is any virtue in the formations where we are located. As to us being in the heart of the Coalinga district, you know that the Coalinga district proper is included all that territory from Kreyenhagen to Oil City, and we are located in the center of this belt, and have always and do always refer to the fact that we are in the heart of the Coalinga district." A president of an oil company who can thus distort facts and brazenly defend his misrepresentations in this way is certainly not entitled to the confidence of the public. The only particle of truth there is in this statement is that the company is at present drilling.

On the first of January, 1903, the company issued an annual report from which we glean the following: Amount of capital stock, \$1,000,000; par value of shares, \$1; total amount of promoters' shares, 500,000; total amount of treasury shares, 500,000; total amount of treasury stock sold, 315,463; total receipts from sale of stock and other sources, \$33,654.64; expense, \$33,573.52; cash on hand and in bank, \$81.12; estimated value of our acreage, 600 acres at \$200 an acre, \$120,000. Just what the item of "expense" covered, the stockholders are left to conjecture. The annual report issued on January 7, 1902, was a

little more explicit. That report gave the receipts for the previous year as \$21,738.85. Paid out during the same time, for real estate, \$3,702.07; for permanent improvements, \$2,869.43; for expense account, \$9,566.73; for commissions, \$4,316.92; bills receivable, \$467.54. The items of the expense account were given as follows: Salaries, \$2,200; rental, \$262; advertising, \$1,547; expediting, \$2,500; general expenses, \$3,037.73. The cash on hand was stated to be \$816.15.

A comparison of these two statements shows that the company received during the interim the sum of \$11,915.79. Add to this the cash on hand at the end of the first year and we have \$12,731.94 to be accounted for. On January 7, 1903, there was \$81.12 in the treasury, showing that \$12,650.82 was spent for some purpose during the year. The latter report says the improvements consist of "a No. 1 standard drilling rig, water and oil tanks, one bunk house, one cook house, one water well, one oil well partly drilled, total cost \$5,000; personal property, \$1,000." As most of the expense on the well and nearly all of the expense for drilling rigs and buildings was incurred during the previous year and was included in that year's report, the question must have arisen in the minds of the stockholders, What became of that \$12,650?

The company has been advertising extensively during the present year and must have sold considerable stock as it is again prosecuting drilling operations, as the president states in his letter to us.

This paper has often been imposed upon by unscrupulous stock manipulators, but it does not propose to stand for the Mt. Hamilton Land and Oil company so long as the present management is in charge. The company will have to show a better bill of health than it has so far done to get our endorsement or be allowed to use us either directly or indirectly for reference.

## California Petroleum.

Edmund O'Neill, in the Journal of the American Chemical Society for July, 1903, states that there is apparently much difference in the quality of California petroleum obtained from different localities, but actually they are very much the same. The difference probably results from natural distillations and filtrations, a light oil being obtained, leaving a heavy residue containing asphaltum. The extreme variance is from 10° Beaume from McKittrick and Sunset districts to 35° Beaume for Coalinga and Puente. A water-white oil is found in the Newhall district that has a gravity of only 50° Beaume, and leaves scarcely any residuum; it is evidently a natural filtrate or distillate. San Mateo, Colusa and Humboldt oils are apparently very different from most of the others, since they contain little or no asphaltum. They have a gravity of 17° to 15° Beaume. Chemically considered, the California petroleum seems to be intermediate between eastern and Russian oils. They contain paraffines, benzines and naphthines. Most of them contain nitrogen and sulphur. The sulphur appears in the form of a volatile substance and is frequently almost entirely removed in a fractional boiling between comparatively narrow limits.

## Overlooked the Holes.

The Bakersfield man who carried off a large quantity of oil-well drilling machinery might set up the plea that he didn't undertake to pull up the holes—in case he feels that way about it.—Los Angeles Times.

## Chicago Company to Build Big Refinery.

The National Oil Refining and Manufacturing company, a Chicago corporation representing eastern capital, promises to be a potent factor in the California oil industry next year, says the Los Angeles Herald. George Calhoun, president and treasurer of the company, is in Los Angeles investigating the prevailing conditions governing the operation of refineries producing asphalt, lubricating oils, briquettes, distillate, tarpaper and paint. He is accompanied by M. R. Fletcher, a newspaper man from Chicago.

Their report upon the crude oil supply, transportation facilities, etc., submitted to the board of directors will decide whether the refinery will be located in Los Angeles or Bakersfield. The investment in California will aggregate, approximately, \$150,000.

In an interview Calhoun said his corporation would contribute more toward developing the oil industry of California than any other factor, as he believed the oil industry, having survived the speculative stage, now rests upon a substantial commercial basis, and upon these lines the new company intends to make its fight for supremacy in this particular phase of the manufacturing business.

The plant proposed will be equipped with the new continuous process, having a daily capacity of 1,500 barrels, the largest refinery in the state and one of the greatest in the world.

Numerous tests in Chicago have demonstrated the utility of California asphalt. In many cases it has proved superior to its Trinidad competitor. Against the elements and weather it has more substantial resisting qualities than the Trinidad product, while the cost is considerably less.

The selection of the site will be made immediately after the return to Chicago of Calhoun and Fletcher, and it is probable that ground will be broken preparatory to the erection of the refinery before January 1st.

## Oil Versus Coal.

Practical tests of Beaumont petroleum have been made by the Southern Pacific railroad and the Gulf, Colorado and Santa Fe railroad. Both of these roads have had experience with California petroleum and are therefore in a position to carry out their experiments in a practical way. According to Mr. Stillman of the Southern Pacific road, the specific gravity of the oil used was 0.9504 (16° B.) It had a flash point of 240° Fahrenheit and fire test of 290° Fahrenheit. The result of the test on this road, as compared with coal, is shown in the following table:

Items—	Petroleum.	Coal.
Miles run.....	224	224
Average steam pressure.....	133	130
Gallons of water evaporated.....	6,609	5,980
Gallons of oil burned.....	755	.....
Pounds of fuel burned.....	6,040	8,043
Miles run per ton.....	74.14	55.72
Amount of the two fuels doing the same work.....	83.1	61

From this test it appears that with petroleum at 30 cents per barrel, which is somewhat above the market price prevailing at the time the test was made, coal should be worth only 93 cents per ton; or, stated in another form, with coal at \$3 per ton, petroleum should be worth 97 cents per barrel.—Los Angeles Herald.

When writing to advertisers always mention the PACIFIC OIL REPORTER.



### The Russian Oil Fields.

An official report on the Russian petroleum industry for the year 1902 has been issued by the Russian government. Extracts from the original have been translated into Roumanian and French by the *Moniteur des Interets Petroliferes Roumains*. The work is very extensive, being issued in three volumes, with profuse illustrations and maps. Two volumes are devoted to Russia alone, while the third volume gives statistics of the petroleum production, etc., of all other countries.

Two provinces in Russia are the chief producers of petroleum in that country, and both are located in the valley of the Caucasus on the shore of the Caspian sea. They are the provinces of Baku and Terek.

The province of Baku is bounded by the Caspian sea on the east, by the provinces of Daghestan and Elisavetpol on the north, and west and by Persia on the south. The petroleum developments of Baku province are located around the city of that name which occupies a narrow neck of land jutting out into the Caspian sea and formerly known as the peninsula of Apscheron. Baku city has about 120,000 inhabitants. It is an important port on the Caspian for trade with Persia and the Russian possessions in Asia, and is the capital of the province.

The Baku petroleum developments are in two sections, as it were—the north and south sections. On the north, about three miles distant from Baku city are half a dozen local oil fields, while on the south, at about the same distance is the Bibi-Eibat territory. The most important wells are in the north. There,

farthest north from the city of Baku, on the shore of the Caspian sea, are the refineries, which occupy two sites, known in the Russian language as "Clornei Gorod" and "Belei Gorod" or the black town and the white town. These refineries are connected with the northern district by pipe-lines, and with the Bibi-Eibat or southern district communication is had by way of the Caspian sea. The entire area comprised in the petroleum field around about Baku is about 3,000 acres; the well-boring companies number 167, and there are 91 refineries.

The province of Terek is northwest of Baku, from which it is separated by the province of Daghestan. It borders on the Caspian sea. The petroleum developments in this province are in the district of Grosny and especially just north of the city of Grosny, which has a population of about 12,000, and is the capital of the district and of the province. The companies operating in petroleum at Grosny number about 26, and there are four refineries.

All over Russia there are indications of petroleum and in many localities the work of prospecting has been carried to a point sufficient to demonstrate that oil exists in considerable quantities, but the actual production at such place is so small that it is not mentioned in the government report. The total production for 1902, as given by the official report, is 670,903,391 poods of  $4\frac{1}{2}$  gallons each, or 3,019,065,259 gallons, as compared with 706,558,418 poods in 1901.

No mention is made in the report of the new district of Chatma, which bids fair to become

an important oil field. Chatma is located south of the Caucasus mountains, equi-distant from the port of Batoum on the Black Sea at the east and Baku on the Caspian at the west. Chatma has not yet assumed first importance as an oil field, but the recent completion of a railway through the district and the importation of extensive oil drilling machinery gives promise of development on a large scale for Chatma—a new oil town on the map of Russia.

### Our Foreign Exports.

For the nine months ending with September 30, 1903, our total exports of petroleum and its products amounted to 663,292,484 gallons, and were valued at \$49,646,991, as compared with 773,501,446 gallons, valued at \$48,771,457 for the same period ending with September 30, 1902. This represents a falling off of 110,208,962 gallons in amount and a gain of \$875,534 in value. For the first nine months of the current year our petroleum exports have declined at the rate of 12,000,000 gallons per month.

The exports for September were distributed as follows: Crude, 10,987,133 gallons; naphtha 932,290 gallons; illuminating oils, 66,045,947 gallons; lubricating oil and paraffine, 7,977,517 gallons; residuum, 582,624 gallons. The total of mineral oils shipped from New York was 41,033,080 gallons; Philadelphia, 41,864,730 gallons; Baltimore, 4,134,284 gallons; Boston, 103,892 gallons; Delaware, 6,823,873 gallons, and Galveston, 2,565,932 gallons.—Oil City Derrick.

The subscription price of the PACIFIC OIL REPORTER is \$2.50 per year.

### Monthly Exports of Oil from San Francisco.

COUNTRIES.	MINERAL, CRUDE, INCLUDING NAT- URAL OILS, WITH- OUT REGARD TO GRAVITY.		MINERAL, REFINED, OR MANUFACTURED.							
	Gallons	Value	Naphtha, including All Lighter Prod- ucts of Distillation.		Illuminating.		Lubricating and Heavy Paraffine Oils.		Residuum, including Tar and all other from which the light bodies have been dis- tilled.	
			Gallons	Value	Gallons	Value	Gallons	Value	Bbbls.	Value
July, 1903.										
British Columbia.....							169	\$60		
Costa Rica.....					650	\$126	82	22		
Guatemala.....					3,440	701	1,020	491		
Honduras.....			630	\$125	2,130	410				
Nicaragua.....							30	11		
Salvador.....			1,100	187	1,100	165	146	71		
Mexico.....							438	191		
British Australasia.....							3,000	688		
French Oceanica.....					140	29				
German Oceanica.....			8,030	964						
Alaska.....					2,634	367	622	375		
Hawaiian Islands.....	3,318,000	\$110,600	46,825	5,682	25,750	5,145	7,918	2,250		
Tutuila.....					100	24				
Total.....	3,318,000	\$110,600	56,585	\$6,958	35,944	\$6,967	13,425	\$4,159		
August, 1903.										
British Columbia.....					300	\$70	2,165	\$929		
Costa Rica.....	100	\$7	440	\$107	800	167				
Guatemala.....					4,890	1,032	230	63		
Honduras.....					300	72				
Salvador.....					340	66	20	5		
Mexico.....					7,200	1,377	28,660	6,319		
Peru.....							1,360	272		
British Australasia.....							722	187		
French Oceanica.....					90	19				
German Oceanica.....			15,160	1,822						
Alaska.....			14,400	3,211	38,149	6,830	558	329		
Hawaii.....	1,365,000	45,500	32,237	3,723	293,770	41,101	16,777	5,441		
Tutuila.....					460	116				
Total.....	1,365,100	\$45,507	62,237	\$8,863	346,299	\$50,850	50,492	\$13,545		
September, 1903.										
British Columbia.....							472	\$132		
Costa Rica.....					1,050	\$139		31		
Guatemala.....					3,450	723	837	282		
Honduras.....					1,100	218				
Nicaragua.....							508	56		
Salvador.....					1,960	308	190	75		
Mexico.....					1,300	295	380	165		
British Australasia.....										
French Oceanica.....										
German Oceanica.....			1,110	\$110	1,260	253	158	87		
Alaska.....	1,008,000	\$36,000			450	92	305	189		
Hawaii.....	1,806,000	60,200	31,920	4,538	125,500	15,703	7,417	2,943		
Tutuila.....					50	13				
Total.....	2,814,000	\$96,200	33,030	\$5,048	136,120	\$17,744	10,347	\$3,960		



### A Text Book for Reliable Information.

This journal has learned with sincere regret of the death of Mr. W. B. Winn, the founder and proprietor of the PACIFIC OIL REPORTER, of San Francisco, Cal., which occurred a short time ago. Since the more active exploitation of the California oil fields, Mr. Winn has worked earnestly for the material advancement and legitimate development of the same, and in a dignified manner has built up his journal until it has become a textbook to those looking for the most reliable information on this important subject. With many other and similar journals trying to cover the same field in the earlier and more exciting days of California's oil history, the PACIFIC OIL REPORTER has forced steadily ahead until it is today the only publication devoted exclusively to the oil interests published on the Pacific coast. The strong personality of Mr. Winn won for him the support and confidence of oil operators and investors alike, who will join with Bonds and Mortgages in deeply regretting his sudden taking off, which means a serious loss to one of the leading industries of the Pacific coast.—Bonds and Mortgages.

### Petroleum Notes.

The New York Commercial says the Standard Oil company will immediately begin the construction of an addition to its oil refinery near Beaumont, Texas, to cost more than \$4,000,000. The refinery as it now stands has cost more than \$5,000,000 and when completed will be the largest in the world.

The Darby Oil company, with holdings in the Chattanooga field, sold out to the Prosperity Oil company, of Bloomington, Ill., the price paid being \$65,000. Senator Ullery, of Fort Wayne, who made the deal and is a member of the Prosperity company, is exceedingly jubilant over the new property and thinks it will terminate into a great bargain.

The United Oil Refining company of Beaumont, Texas, continues its policy of absorbing the smaller refineries. For a consideration of \$54,000, the company has acquired two steel tanks of capacity of 37,000 and 55,000 barrels respectively, with all the oil contained therein; also the oil contained in the pipes and tank of the National oil and pipe line company to the credit of Alfred A. Glasier.

J. H. Lobell, manager of the Belgo-American Oil Drilling trust, has returned from a visit to England and France, where he went to report on the progress being made by the drilling trust in Wyoming, and to unfold new plans having for their object the further development of the oil fields. Mr. Lobell is greatly encouraged at the progress being made in the Salt Creek, Salt Wells, Lander and other fields in which the Belgo-American company is interested and is now operating.

The Butler Oil and Gas company, which was recently organized with a capital stock of \$500,000 to develop the gas and oil in James county, Tennessee, has now commenced operations near Ooltewah, Tenn. Two carloads of machinery have already arrived and the company will begin boring an oil well on the farm of Col. J. P. Parker about a quarter of a mile from Ooltewah, and about a mile from the site of the Chattanooga Powder company's plant. The company claim that both oil and

gas have been found in that section in quantities that will reveal some startling discoveries.

The Silver Mountain Oil and Mining company, recently organized by Indiana capitalists with \$2,000,000 capital stock, will send a number of drills and drilling machines, a corps of skilled workmen, both in mining and in the oil business, and a man to manage the equipment into the new oil fields of Utah and Colorado. Not until the cream of the territory had been selected by experts and the company had secured control of it had the operations of the new concern been let known. The company represents influential men from Indianapolis, Marion, Muncie, and a number of other Indiana cities. While they are reticent regarding the value of the property, comprising more than 30,000 acres, it is learned that it represents almost wholly the new Utah and Colorado basins.

### Oil Good for Ditch Banks.

Regarding the use of oil on levee banks to prevent erosion and to keep out squirrels and gophers, Superintendent Childs of Turlock district states that in his opinion the best investment the district could make would be the purchase of a train load of oil for use on

### Juggling Associated Oil Company's Stock.

The fact that Associated Oil stock was recently sold at 19 cents is stated by a local oil man to be an attempt at hammering. The actual value of the Associated stock is upward of 20 cents, and it is considered doubtful if any quantity of the stock could be obtained at that figure. The authority quoted says that the reported sale of Associated at 19 cents is a resort to the same tactics used to beat down the price of Kern Oil when a small block of the stock was kept changing hands at a low figure in order to keep a low quotation before the public.—Bakersfield Echo.

### The Beaumont Oil Field.

From a brief visit to the Texas oil fields, I certainly found no signs of decadence or the dropping out of the bottom. The wild-cat stock companies have certainly gone to the wall, but as to the oil and the oil field, they are still there and prospering. It is true that crude oil has dropped from 60 cents to 19 cents a barrel in the last few months, but this drop was not due to any fault in the natural conditions of the field, but solely because of the rapid increase in the supply due to the re-



A Typical Southern California Oil Field.

the canal banks. In wide places the wind often creates waves that erode the banks; and in the sand stretches the elements are ever necessitating work to preserve the integrity of the banks. Further, that no squirrels nor gophers have been found in those portions of the canal banks that were oiled some months ago. When it is understood that a break attributable to the burrowing of these creatures often means the expenditure of hundreds of dollars for repairs, the significance in this respect alone, of the superintendent's suggestion may be appreciated.—Hanford Sentinel.

### The Thirteenth a Lucky Day.

The thirteenth of the month was far from an unlucky day for the oil producers. The three-cent advance that took place in credit balances Tuesday gave them a \$1.68 market, and was another gratifying indication of the strength of the petroleum situation. Other grades of oil were increased proportionately with Pennsylvania, which will redouble the efforts of the operators to maintain the present supply of crude petroleum. And the oil country is always prosperous when the drill is dancing to fast music.—Oil City Derrick.

markable extension of the field. During the past week the price has advanced to 25 cents, and there is no doubt but that it will go higher as soon as transportation facilities can be found for the over-supply now running off in the bayous from Sour Lake.

The Beaumont field as a whole has made considerable expansion since Captain Lucas struck his gusher in March, 1901. The daily production September 1 was as follows:

	Wells	Product in bbls.
Ainse Le Butte .....	1	25
Jennings, La. ....	20	5,000
Welsh, La. ....	5	750
Beaumont* .....		21,000
Sour Lake .....	50	40,000
Saratoga† .....	8	1,500
Vinton .....	20	....
Tar Well .....	1	20
Total daily .....		68,295

\* Number of wells not given.

† Saratoga wells have no transportation as yet.

If there were tankage and transportation, the daily production would be fully 75,000 barrels. As it is the present production is at the rate of nearly 3,000,000 barrels per annum.

It is also gratifying to note that development work is going on all along the line. Saratoga and Sour Lake bid fair to be larger fields than Beaumont, although the large area of Guffey and Gayley's holdings at the latter place are now being drilled for the first time.—Correspondence Engineering and Mining Journal.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Oct. 20, 1903.

Mr. H. H. Briz bought of Mr. C. E. Barker the N $\frac{1}{2}$  of section 4, 21-15.

C. J. Campbell has purchased of Mr. T. J. Patterson the S $\frac{1}{2}$  of the NW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of section 10, 21-15.

Mr. F. G. Kellier, of Singapore, India, who is interested in the oil industry in that country, was in town looking over the field.

The companies that spudded in during the past week are as follows: El Capitan No. 3, R. C. Baker No. 2, and Pleasant Valley Farming Co. No. 2.

Messrs. Welsh, Lisenby and Maxfield have sold to C. H. McKeveit the N $\frac{1}{2}$  of section 36, 20-14. We understand that drilling will be begun in a very short time.

The Mt. Hamilton Oil company, located near Alcaide station, has resumed work after a shutdown for some months. It has reached a depth of about 500 feet.

Messrs. Corry & Anderson have taken the contract to drill well No. 1 for the Pennsylvania Mining and Development company on section 12. Drilling will be started sometime during the coming week.

The New San Francisco Crude Oil company's well No. 1 is now on the pump, Mr. Guthries having been successful in shutting off the water that has been exceedingly troublesome in pumping the well.

Independence Oil company's No. 8 well is exceeding all expectations in its production and it stands to-day numbered among the best producing wells in this field. The well was finished at a depth of 1,200 feet, penetrating more oil sand than any of the other wells of the company.

The California Oilfields Limited has purchased a tract of land from Mr. Charles Henslick on section 4, south of the town, where it expects to erect a storehouse and dwelling. Mr. H. S. Davis, formerly foreman of the Pacific Coast Oil company, has accepted a position with the company.

The Keystone Oil company is the name of the new company that has purchased the lease and rig formerly owned by the Plymouth Consolidated Land and Development company on section 32. Work on the first well will begin within a week or so, as the rig stands ready for spudding in as left by the Plymouth people. Messrs. Brown & Garigan have taken the contract to finish the well.

Mr. R. J. King, for some time the superin-

tendent of the Esperanza Oil and Gas company, resigned his position and on the 15th instant was superseded by Mr. H. Anderson, of Bakersfield. Since Mr. Bunting got the controlling interest in this company many changes have been made. A water well has just been finished to supply the company in its drilling operations, number 4 rig is nearly ready to spud in, a 20,000-barrel storage tank will soon be added, and the drilling of new wells will be carried on uninterruptedly for some time.

At last the Southern Pacific Railroad has taken up the matter of better service for Coalinga and installed a new train. The regular train, which is a mixed train, arrives duly on time at 1:00 P. M. and leaves at 1:35 P. M. The other train is a purely oil train, and it was the switching at Ora with the cars that usually caused the longest delay. While the train is still a mixed train and does not make very good time, we can at least rely upon its arrival and departure with some certainty.

R. M. D.

### The Crude Market.

The advancing of crude prices, for which producers long have been looking, has taken a start and is expected to continue unless there should be a speedy and great change in existing conditions. During the last two weeks there have been four advances of three cents each in the price of crude of the Pennsylvania grade, with an attendant lifting of the prices for other grades of crude, making the quotations today (the 14th) as follows:

Tiona and Warren .....	\$1.83
Pennsylvania .....	1.68
New Castle .....	1.55
Corning .....	1.48
North Lima .....	1.26
South Lima and Indiana .....	1.21
Whitehouse, Ky. ....	1.35
Somerset and Lacy .....	1.21
Ragland .....	.66

Other quotations are: Neodesha, Kan., \$1.24; Chanute, Kan., \$1.04; Bartlesville, Ind. Ter., \$1.02; Corsicana, Tex., light, \$1.18; Corsicana, heavy, 60 cents.

The speculative oil market in the east has shown a few premonitory symptoms during the past week of awakening from its long sleep. At the Oil City exchange the price of certificates was bid up several cents above the credit balance price with no sellers. As the Petroleum Gazette readers generally are aware, certificate oil, in which most speculation has been done in the past in the east, is represented by National Transit (Standard) certificates. When the credit balances of a producer whose oil is taken in custody by the line, amounts to 1,000 barrels he may exchange it for a National Transit certificate. The producer who has thus obtained the certificate may sell it where and to whom he

pleases. The Standard in buying crude used to base its quotations on the exchange price of these certificates, but in recent years it has not done so, being guided instead, as it says, "by the demands of the world for petroleum." Because of this action on the part of the Standard there has been since then less and less conversion of credit balances into certificates. There are but few of them now in existence, but it will not be surprising if they increase in number or there is outside dealing in credit balances inaugurated, unless further and rapid advances bring the crude quotations nearer to the level which the producers consider justified by the present conditions of supply and demand as they relate to the higher grades of oils. Indeed there have been rumors during the past few months of the possibility of interesting developments along this line. It would not require a very heavy financial interest or combination of interests to buy outright all the higher grade oils now in stock, according to the statistics of the pipe line companies, and including the amount of oil used in keeping the lines filled for operation, which amount, be it remembered, is included in the pipe line statements in the amount of oil in stock. For such a movement as the one hinted at it possibly would be of little consequence if all the oil now represented by credit balances were represented instead by outstanding certificates, but credit balances not converted into certificates represent a different phase of the matter, and the inauguration of an outside movement to buy them and to require the delivery of oil for them from the pipe lines as common carriers would undoubtedly lead speedily to interesting developments.—Petroleum Gazette.

### Big Land Deals in Coalinga.

One big land deal was closed in the Coalinga field the past week and several others are pending, the interested parties not wishing anything said about them until they are finally closed up. The Valley Slope Oil company, composed of H. U. Maxfield of San Francisco and H. H. Welsh and A. V. Lisenby of Fresno, has sold to a syndicate of capitalists, who for the present wish to have their identity concealed, the north one-half of section 36, 20-14, just west from the town of Coalinga. Other lands in the same locality are being negotiated for and the probabilities are that the extreme southwestern part of the field will witness considerable activity before the year closes.

### Hanford's Annual Meeting.

The annual meeting of the stockholders of the Hanford Oil company will be held at the office of the company in Hanford on Monday, November 2nd.

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STORES



# Eastern Declining Oil Wells.

## The Steady Exhaustion of Surplus Stocks Will Compel Standard Oil Company to Find More Oil or New Methods.

What is the future of the crude petroleum business of the United States?

The man who can answer the question has a fortune at his fingers' ends. In spite of the assurances of the government experts the producer does not take a rosy view.

There has not been a substantial reason for hopefulness since the decline of the McDonald field commenced. McDonald has been the only real influential factor since the Bradford field reached its climax. That is to say in the history of the oil trade we have seen but two great tides of production, and of these Bradford was the principal one, and the one that has given to the world its chief supply, of oil from one quarter. Without either Bradford or McDonald, or without Bradford itself, the oil trade would never have reached its enormous proportions. Bradford was the one rich field which endured, and contributed enough oil to have a permanent and significant influence. Bradford was to the oil trade what Pittsburg was to the iron and steel trade. Fortunately manufacturing steel is a thing that can be governed by human needs, while pumping oil from the ground is limited to the quantity which is there.

The world has learned in less than fifty years to depend on petroleum for its light. In thickly settled communities electric lights and artificial gas are possible. In rural regions the kerosene lamp is the standby and in every latitude. There is no more staple industry than that which deals with producing and refining petroleum.

We talk with amazement at the big capital of the United States Steel corporation, a combination of many concerns. At the current market prices for its securities the steel corporation has a valuation of about \$730,000,000. The Standard Oil company, at the current market prices for its securities, has a valuation of about \$650,000,000. The Standard Oil company is based on the one industry, the production and distribution of petroleum and its products. Besides the Standard are a number of other corporations of more or less magnitude. Observing men have asked themselves the question—Is the industry in which almost a billion dollars are based in danger of decay from the exhaustion of the product?

The question is worth some inquiry. It is worth some inquiry because the petroleum industry is one of the chief occupations of western Pennsylvania. An army of well paid workers are engaged in the production and refining of oil. Oil well supply houses find work for thousands of men. The iron industry is kept busy making tubes, tools and similar wares for the oil well men. Oil wells are the best patrons of the rope makers and the lumber men.

For the purpose of simplifying the situation it is well enough to bear in mind that there are three grades of oil produced in the United States. Of these one is the Pennsylvania oil. This is the kind found in a territory drained by the Alleghany river and the upper Ohio. It reaches from Alleghany, New York, to eastern Ohio and West Virginia, along the

Ohio river. This is the only first-class oil found in the world.

Ohio, Indiana, Kentucky and some other states produce an oil from the lime rock. This is an inferior grade, having neither the high proportion of illuminants that the Pennsylvania oil has nor the purity from objectionable factors. Necessity has compelled the use of a large quantity of it. For some years the absolute requirements have put on the market daily from 50,000 to 65,000 barrels. The inferior Ohio oil saved the superior Pennsylvania oil from exhaustion long ago.

Besides these two grades is the kind found in Texas and the west. It is so little valued than it can better be classed among the illuminants. This leaves the situation confined to the east. Such fields as those of Kansas, Kentucky, etc., can hardly be taken into consideration. They have not produced enough oil to affect the situation, and there is no good reason to expect much from any of them right away if ever. At any rate they do not produce the Pennsylvania grade of oil. The wells in the territory producing Pennsylvania oil have been able to yield about an average of 87,000 barrels daily for some months. The consumption of this grade of oil, in spite of the quantity of Ohio oil used, is averaging about 2,500,000 barrels a year greater than the production. In consequence, when the pipe-lines had a surplus of 13,000,000 barrels of Pennsylvania oil three years ago now they have less than half that much. Another three years of a similar experience would wipe out the accumulated surplus, and leave the world dependent upon the daily supply of the wells. This surplus was piled up in the days of the Bradford field, and helped in the days of McDonald.

In August, 1884, when Bradford was at its liveliest, the surplus accumulated exceeded 39,000,000 barrels of Pennsylvania oil. This fell off to less than 10,000,000 when the McDonald boom brought it up to nearly 19,000,000 in 1892. Then the surplus started downward. The boom that followed the extraordinary effort commencing in 1895, which scoured every available corner and cleaned out every available old well to increase the production, added slightly to the surplus again. In the effort to hold the yield of Pennsylvania oil about 45,000 new wells have been drilled in the past nine years. This is twice as many as were drilled in the whole Bradford field, yet Bradford has probably produced about 200,000,000 barrels of oil.

The enormous number of new wells that have been going down steadily in the last nine years has served to drill and re-drill every rod of ground that has been suspected of harboring a drop of oil. This exploration has been pushed all through Western Pennsylvania, Ohio and West Virginia, the search extending from the top of the Alleghany mountains clear to the defined limestone regions of Ohio. In all the effort nothing of great consequence has come to the front. There have been extensions like those in Butler county, Gordon sand finds in West Virginia, hopeful developments like Sistersville, shallow sand pools, Scioto discoveries and

interminable other things to increase the yield a few thousand barrels for a few weeks or months. But the big things in oil have been Bradford and McDonald. Today there is nothing in sight no matter where the wild-catter may turn. With the 45,000 new wells that have been added to the old ones, the daily production is still in the class with the latter part of 1890, while consumption has increased to such a point as to use all that is produced, draw upon the surplus, and also use 60,000 barrels daily of the inferior Ohio product.

The world has scarcely ever seen a more desperate endeavor to sustain a great industry than is made now by those who are concerned. If the trade were left to depend on the old wells for a supply of oil a year would see ruin. A great industry would perish. This is why some 25 new wells are drilled every day in the Pennsylvania oil territory, involving an outlay of \$1,400,000 a month in the search. The Standard Oil company must have crude oil to keep up its business and occupy its plants that represent hundreds of millions of investment. The producers who have their money in oil must maintain their production. The world must have an illuminant. Probably \$15,000,000 a year is going into new development in Pennsylvania, West Virginia and eastern Ohio alone in the hope of widening the field for the production of illuminating oil, and that prodigal expenditure is not having the slightest effect in increasing the yield. On the contrary, the old wells are steadily declining, while the new wells are not good enough to make up for the loss. The increased activity has been extended to the exploration of new fields. It has also included the further draft upon oil fields that still retain a little oil. The result is that known territory has been urged to greater endeavor, and consequently to more complete exhaustion. The oil man has been squeezing the sponge harder and harder and he has not been finding anything promising in future relief.

The Standard Oil company must have oil. It cannot permit its big investments to go to ruin. In the hope of getting that oil it has kept the price up around \$1.50 for a long time. Ten years ago dollar oil would have stimulated the drill. Now crude at \$1.62 does not induce enough activity to bring the needed supply. Men who are observant say we have wasted a heritage in riotous living.

When oil was bringing 52 cents a barrel a great export trade was built up. Now we could use the oil at home, and would give much more than that to get it back. It is the story of natural gas, of lumber and of everything that has been wasted. Lumber was once ignorantly presumed to be inexhaustible. Now lumber brings money, but none to Pennsylvania, which has none to speak of. Oil that the producer sold for 52 cents a barrel for the export trade cannot be duplicated now for three times that much. It is needless to blame the Standard Oil company for the price of oil. The Standard is a buyer of crude, and is not interested in putting up the price. The producer will not furnish it for less money, and he will not furnish as much as is needed even for the present price.

The future is one for the most serious speculation. Certainly all the country that is of such geological formation as to give a hope of the high grade crude has been thoroughly explored.

The only hope that presents itself is for a more thorough development of some of the oil fields, which will add somewhat to the



quantity of oil which has been produced, but which cannot increase the daily production, nor even hold it where it is.

It is a different proposition to speculate on what may be found in the oil fields of the West. Possibly that same determination which has enabled the Standard Oil company by the expenditure of millions of dollars in finding a way to refine Ohio oils may find a way to make the heavy oils of the West amenable to treatment. But it has to be borne in mind that while the heavy oils are quite similar chemically to the light oils of the Pennsylvania district they do not possess the delicate gases that go to make gasoline and the better illuminating fluids. Gasoline under the demands of gasoline engines and the multiplication of automobiles is increasing in demand. As the automobile becomes more common more gasoline will be wanted.

The Standard Oil company must work out the problem. Its enormous investment in pipe-lines, refineries, ships, and other means for producing, refining and distributing oil compels it in self-defense to find the crude, offer inducements for others to find it, or find a way to provide the refined products from other sources than Pennsylvania oil. The Lima oil will not do it, for it is not of the high quality, nor is it sufficiently abundant. Ohio is like Pennsylvania. The Lima stocks are falling off just as the stocks are in the eastern belt. The Pennsylvania oil comes from a sandstone formation, which is found from New York to the Big Sandy river on the Kentucky boundary. The belt is about 100 miles wide. Outside of that territory the sand is rarely found. Different rocks are discovered by the drill. This territory has been drilled and prospected until it is much like a large sieve. Few square miles of it are left to be tested. There is hardly a place in all the region big enough to hold a moderate pool that has not been tried with one or two wells. The results are disappointing. They are also quite conclusive. Unless something closely akin to the miraculous happens the oil trade is soon to be on scant rations even with that kind. The day may be immediately at hand, but the prospects are not good. The surplus of Pennsylvania oil is too small to be encouraging.—BION H. BUTLER in Sistersville (W. Va.) Oil Review.

#### Tell Investors the Plain Truth.

When an investor places his money in an oil company whose announcements are apparently backed up by these attractive "gushers" and then finds later that he has only an interest in a prospect he is apt to become disgusted with every sort of oil investment. It is wrong that this should occur, for throughout the country the oil properties are to-day in a more prosperous condition and are being conducted in general with more good business judgment than ever before in the history of the industry. New fields are being opened and new capital needed to perfect their work, but it is not always a winning proposition. There must be experiments or we will never know what resources are under ground. It is no disgrace nor detriment to the oil company to say that it is "prospecting." It is not supposed by the investor that oil is spouting thousands of dollars into the air every twenty-four hours. He becomes suspicious when he is told that stock in a company claiming this can be bought for a trifle. The best way and the right way is to tell the truth and this applies to oil investments as well as to all others.—Bonds and Mortgages.

#### Obligations of Oil Leaseholds.

A Santa Barbara special to the Chronicle of the 20th says: The State Supreme Court has just handed down a decision in the case of the Acme Oil and Mining company against H. T. Williams and others involving leasehold rights in the Summerland district, near Santa Barbara, which will have an important bearing upon the oil industry throughout the state. It will go a long way toward effectually stopping "wild-catting," which evidently is the purpose of the court.

The important feature of the decision is that which holds that parties obtaining leaseholds with royalties as a consideration must sink wells and do substantial development work during the life of the lease. The suit which brought forth this ruling was commenced in the Superior Court of Santa Barbara county about five years ago.

The Acme company secured a lease agreeing to put down two wells within as many months and more wells within a year, paying a royalty of ten cents a barrel. Two shallow wells were put down and the royalties paid for two months, after which operations were discontinued, the company holding that it had until the end of the year on the contract before forfeiture could be claimed by Williams.

Subsequently the drilling rigs, tanks and oil were sold under an attachment and Williams took possession of the premises, contending that the conditions of the lease had not been fulfilled. He then leased the land to other parties who proceeded with development work. The Acme company brought suit for the recovery of the leasehold, which had also been sold, but lost its case in the Superior court. This judgment has just been sustained by the Supreme court, which says in part:

"Covenants may be implied as well as expressed, and in oil leases and others of that character, where the consideration for the lease is solely for the payment of royalties, there is an implied covenant not only that the wells will be sunk, but that oil will be produced in paying quantities, and that the wells will be diligently operated for the benefit of both parties to the contract."

#### The S. P. will Close Big Deal November 1st.

On November 1st, according to the contract, the money is due to be paid by the Southern Pacific to the Reed Crude and San Joaquin companies for the Associated stock sold by them to Harriman and his company. The amount to be paid over to the two companies for their stock is \$1,560,000, of which \$840,000 goes to the Reed Crude and \$720,000 to the San Joaquin. Of the latter \$35,000 has already been paid over, leaving \$685,000 to be paid on the first.

The stockholders of the Reed Crude are now receiving circulars asking them to turn in their stock, this being necessary on account of the reduction of capital stock from \$2,000,000 to \$100,000 recently determined upon. The stockholders will in turn be returned the proportion due them under the new capitalization and the balance in money. The company will then continue business on such of its property as remains outside of the combine. The San Joaquin will probably wind up its affairs entirely after the money is received and distributed among the stockholders, it having no property outside of that included in the Associated lease. In his circular some months ago announcing the sale of the company's Associated holdings, President Bunting announced that this would soon wind up the affairs of the corporation.—Bakersfield Californian.

#### The Standard's Way.

It is really a \$2 situation but there are no evidences that the situation will win out. The Standard Oil company crowd have a way of making situations to suit their purposes. Just now it is apparent that it is their purpose to put prices for refined oil to as high a price as the markets of the world will take it at, but it is also apparent that they do not intend to give the oil producer but a small percentage of their enormous profits. The Standard Oil company will never pay a price for crude that the situation justifies.—Sistersville (W. Va.) Oil Review.

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## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### Alameda.

At a meeting of the town trustees of San Leandro Monday evening the street committee reported that arrangements had been made with a San Francisco firm to oil 1,275 feet of Joaquin avenue, which work, the committee stated, would be started shortly. It is the intention of the trustees to give this method of improving streets a thorough test, and should it prove satisfactory, to oil a number of San Leandro's principal thoroughfares. The board also decided to experiment with oil upon a newly macadamized street, an experiment that has as yet met with but slight satisfaction. It will be announced at the next meeting which street has been selected for this experiment.

#### Coalinga.

R. G. King has resigned the position of superintendent for the Esperanza Oil company, and has returned to Hanford to reside.

John A. Bunting, president of the Esperanza Oil company, with a party of friends, visited the field this week, coming over in Mr. Bunting's private car.

Captain J. A. McClurg, who has recently been ill, has returned to Coalinga. Captain McClurg is one of the pioneers in the oil business here, and the town does not seem natural without his familiar face.

Articles of incorporation of the Genesee Oil company were filed with the county clerk on Tuesday by the incorporators, W. H. Ingels, P. E. Daniels, W. G. Uridge, G. A. Hare and M. Hansen. The capital stock is \$200,000.

Attorney H. H. Welsh has begun suit against the San Joaquin Valley Coal Mining company to establish his own title to the N $\frac{1}{2}$  of section 36 and E $\frac{1}{2}$  of section 26, in township 20 south, range 14 east, and to have it declared that the company has no interest whatever in the land.

The Keystone Oil company is the name of the new company that will operate on what was known as the Plymouth lease. Brown & Garrigan have taken the contract for the No. 1 well, and will go 1,650 feet if necessary. The outlook for oil on this lease is good, as the property is just east of the Commercial Petroleum company, on section 32, 19-15.

#### Colusa.

We learn that the Williams Oil company thinks so favorably of its prospects that it will not sell any more stock.

Owing to bad workmanship in hole No. 2 at the Chehalis oil well on Sulphur creek, hole No. 3 was started on Monday. In the other hole a bit had been lost and it was crooked and full of water. A competent driller, Dick Shirk, is now in charge, and better results may be expected.—Arbuckle Independent.

#### Contra Costa.

The American Oil and Refining company, operating near Lafayette, met with an experience last Wednesday that cost them their derrick, rig, tools, camp and everything connected with their well-drilling outfit. About 7 o'clock in the evening, while the crew were at work, the drill penetrated a gas pocket which was immediately followed by a blowout. The escaping gas and oil became ignited and at once enveloped everything about the rig in a sheet of flame. The loss was complete. The company at once set to work to rebuild

and work will be prosecuted to what promises to be a successful termination. Considerable oil was blown out by the gas. The well is about 1,070 feet deep in a splendid oil formation.

#### Half Moon Bay.

The Pilarcitos Oil company began operations again after some considerable delay.

The High Gravity Oil company, beyond the 1,200 foot depth, have struck a formation carrying some oil, but were unfortunate in having their cable break which will delay them a few days.

The Paxton company, after having difficulty with their casing for about two weeks, are again running day and night forces with very heavy gas pressure and considerable oil. Night work will probably have to be discontinued owing to the danger of fire occasioned by the gas.

J. E. Kerr of San Francisco is making good progress on the drilling of shallow wells recently started, and within a few days will have the first well completed. In the shallow well a light oil strata was struck of a barrel or two at 120 feet, also a similar amount at 400 feet and 450 feet. It is a light green, 52 gravity oil. Rapid progress is being made on this well, 250 feet having been drilled in one day last week.

#### Kern.

The case of the Bakersfield Iron Works vs. the Lucky Boy Oil company has been dismissed.

E. R. Smith, of Fresno, has received the contract to build four houses and outbuildings for the Pacific Coast Oil company, at a cost of \$9,000.

Joseph Aron has commenced a suit against the Pacific Land and Oil syndicate to quiet title to sections 6 and 7, township 26 south, range 19 east.

Justice Clark of Sunset dismissed the case against the two Hoys and young Wessley in which they were charged with stealing lumber from one of the oil companies at Sunset.

The Monte Cristo Oil company has paid another monthly dividend of 1 cent per share. The company's stock is selling at 75 to 80 cents, which makes the investment pay about 15 per cent.

Cheney brothers have purchased two houses of the Rinconado Oil company and moved them to their lease at Maricopa. One is being converted into a comfortable residence for J. Cheney and wife; the other will be fitted up as an office. The blacksmith shop is fast assuming proportions and will soon be ready for occupancy.

The suit of F. R. Ellis, James A. Bernard, W. H. Emmons and H. R. Profit versus Kern River Oil company (consolidated) has been stricken from the calendar. The case was brought to oust defendant from possession of lands at Kern River on 34-28-28, claimed by both parties, the plaintiff alleging that the deeds by virtue of which the defendant claimed the property are bogus.

The Bear Flag Oil company has just declared a dividend of 7 cents per share, payable immediately. The total amount to be paid out is a trifle over \$7,000. The company owns property on 31, 28-28 at Kern River, now leased to Max Grossmayer and his partners, H. A. Jastro, C. H. Fairchild and L. P. St. Clair, Jr. There are four wells on it and a fifth is being drilled. The company probably receives a good income from its lease.

The Peerless last week completed well No. 26 at a depth of 1,175 feet and it is producing 300 barrels a day. The casing in No. 25 collapsed recently and the well has been re-drilled. No. 27 is drilling at a depth of 1,050 feet. The property with only twenty-four wells in actual operation, has been producing about 4,700 barrels of oil a day. Stock is at \$14 and the company is considered one of the leading independents in the field.

The Associated has enacted a very strict rule against smoking by its employees while at work, either around completed wells or while the same are being drilled. Notices are being posted on the leases giving notice to all that any one caught smoking will be discharged. It is said that trouble has resulted from lighting matches and smoking around wells, particularly where there is gas, hence the adoption of the rule.

The dividend just declared by the Bear Flag Oil company of some \$7,000 is derived from a recent sale made of its holdings in the Associated. The company has a portion of its land on 31, 28-28 in the combine and the balance leased to local parties and held a large amount of Associated stocks and bonds which it disposed of a short time ago. The names of the purchasers were not given but it is considered more than likely that they were the same parties who have been buying the stock of the Associated recently.

Five carloads of the ten-inch pipe ordered for the pipe-line to be put in by the California Consolidated Oil Fields company have been shipped from the East the balance to follow shortly. This pipe-line, so long awaited, bids fair to materialize at once, and its coming will be hailed with delight by all present and prospective producers. It is to tap a very productive territory, and when once the pipe is on the ground and the good faith of the proposition demon-

strated, all cries of a lack of transportation will be at an end.

The Neptune Oil and Development company, a Fresno corporation, organized in November, 1900, has filed its articles of incorporation with the county clerk of Kern county. The capital stock is \$150,000, par value of shares \$1 each. The incorporators and stockholders named are: Frank Laning, W. A. Cowan, M. K. Harris, A. C. Wilkinson, W. F. McVey, H. A. Booth and W. H. Ingels, each of whom is credited with the ownership of fifty shares. The directors named are: W. D. Bowen, W. A. Cowan, M. K. Harris, A. C. Wilkinson, and W. F. McVey. All those named are residents of Fresno.

The McKittrick has entered into a contract with the Associated, by which the entire product of the former company's wells at McKittrick is to be taken by the combine. The officers of the McKittrick company in this city confirm the report of the deal which was closed a few days ago. The Associated is closing deals for oil all the time, many of the contracts never becoming publicly known. It is reported that the big company expects to be in a position to pay dividends by the first of the year and that the extensive drilling operations now in progress will then be largely completed. These are of course very costly and until completed the company is not generally expected to bring returns to the stockholders. When all the wells drilling or about to be drilled are finished, however, the product controlled by the company will be enormous. Under the terms of its leases the Associated is obliged to do an enormous amount of work on many of its properties within a given period and this is now being pushed vigorously at the field.—Californian.

#### Los Angeles.

Wallace Pelton of 920 Bartlett street, a

## COALINGA LANDS ::= FOR ::= SALE

A developed property in the Coalinga field is offered for sale at a very low price. This property has producing wells and is selling oil.

If you have \$30,000 and mean business, we will give you particulars. No curiosity seekers noticed.

Land Department,  
Pacific Oil Reporter,  
San Francisco.



sixteen-year-old-boy, fell from an oil derrick yesterday afternoon, a distance of thirty-five or forty feet. His wrists and thighs were fractured, several teeth were knocked out and he sustained cuts and bruises about the face which will disfigure him for life. The youth was employed as a derrick man in the oil fields. The rods had been pulled out of a well at the corner of Bernard and Castelar streets and Pelton had gone to the top of the derrick to bring down the ropes. As he was coming down with them he slipped and fell to the ground. None of the workmen standing at the foot of the derrick saw how the accident happened.

#### Santa Barbara.

The Graciosa Oil company has resumed drilling on its first well after a delay of some time waiting for casing.

The Santa Maria Oil and Gas company is pegging away faithfully, the work now progressing very satisfactorily. Mr. Squier is superintending the drilling.

The Brookshire expects to begin drilling on well No. 2 in a few days. At present a pipe-line to supply water is being constructed from well No. 1 to No. 2.

The Union Oil company is now laying its new pipe-line from the wells to Graciosa station, employing a large force of men. The new tank, which has a capacity of 35,000 barrels, has been completed and is ready to receive oil as soon as the line is finished. Well No. 1, which is a fine producer, is capped awaiting the completion of the pipe-line. Work on well No. 2 is progressing.

The Pinal company's well No. 4 is scheduled to come in almost any minute. The drillers are working in shale that foretells a fine well, and Manager Goodwin is very enthusiastic over the probable results when the oil sands are struck. No. 1 is being deepened, while No. 2 and 3 are yielding oil. Oil is being piped to Graciosa, from which point it is delivered to the sugar factory as well as local companies.

A deed was filed with the county recorder on Monday by which Paul M. Gregg of San Luis Obispo conveys to the Santa Maria Oil company several tracts of land in the northern end of the county. Mr. Gregg is an oil man and has been doing development work on the property. The sale is an important one. Besides the cash consideration, it is subject to a \$125,000 indebtedness.

An important meeting of the Pinal stockholders took place on Saturday last, which was attended by shareholders from all parts of the state. The reports of the manager and president were read and approved and the officers highly complimented for the efficient manner in which the company's affairs had been so successfully carried through. All the officers have been re-elected with the exception of A. H. McKay and M. Barnard, who resigned as directors and whose places have been filled by Judge Venable and P. O. Tietzen.

The Lompoc Oil Developing company has purchased a standard steel wire cable with which to prosecute the work of drilling after clearing their present well of obstructions. The hole was down over 2,500 feet when the rope cable parted, and being in four-inch casing, renders it necessary to pull the casing out before cleaning the well of the obstruction and securing the drill. If no further hindrances interpose, the coming week should see the work progressing properly, with every prospect of reaching the oil strata.—Santa Maria Times.

Lompoc has a gusher. A telephonic message was received here yesterday morning stating that the Union Oil company had brought in one of the best wells in the northern end of the county.

The well is located on the Wise & Dene-gan tract, north of the town of Lompoc and about two and one-half miles west of the Parisima well which was put down about a year ago and which has continued to flow 250 barrels a day. When the tools pierced the oil stratum the black fluid spouted high in the air, but the casing was immediately capped and little oil was allowed to go to waste. The strike is an important one, as it proves a large district in which a number of holes are being put down to be oil territory.—Santa Barbara Press.

#### Summerland.

Manager Bryson of the Santa Barbara Oil company is this week engaged in moving the storage tanks of the Marine company off the M. F. Bishop lease. The corporation, since losing suit for possession, have been paying a ground rent of \$5 a month. Recently they were notified that the rent would be raised to \$15 a month, and they concluded it would be cheaper to vacate.

#### Whittier.

The Central Oil company commenced spudding on No. 9 this week. Last week two new wells were put on the pump and are showing up well. Four wells are drilling; No. 9, spudding, No. 5, down about 1,200 feet with ten-inch drive pipe; No. 38 and 39 about 2,000 feet each with 6½-inch drive pipe. These four wells are expected to be completed within the next sixty days. Scott Keen is hauling timber for No. 41, which is to be located at the east end of the field, near the Warner line. Judging from the fact that at the regular meeting on the 12th inst. a dividend of 2 per cent was declared, it would seem that this company was on a very substantial footing. The Central company was the pioneer in this field and has kept steadily at it for several years, developing their property, purchasing machinery and employing a small army of people.

#### Wyoming.

It is reported the Michigan-Wyoming people will redeem their property in a few days and resume drilling operations at once.

Several companies are doing their assessment work, and nearly everybody is anxious to hold their ground and will do likewise.

John Shirk was in town Thursday purchasing material with which to do assessment work. His faith in the oil field still holds good.

A rumor based upon good authority is to the effect that the Hearst estate of California has become largely interested in the Atlantic & Pacific Oil Co.

Wm. Gray and R. C. Baker will soon begin building a rig on section 10-14-118. This is the section upon which the Atlantic & Pacific are also located and is proven territory.

The demand for high grade oil, such as is found in the Uinta county field, is far in excess of the supply, but next season our product will go in to relieve the situation to a great extent. From all indications we will have plenty of it for market soon.

B. L. Culver, managing driller for the Bettys Oil & Development company has resigned his position and left for California for the winter. The company has secured the services of another practical man and will continue drilling operations. They are now down 800 feet, with the water nicely cased off, and making rapid progress toward the oil-bearing sands.

John Eaton, of the National Supply company, of Pittsburg, Pa., was a visitor to our field last week and was enthusiastic over our high grade oil. The gentleman said that if the field continues to improve his company will put in a machine shop next spring, as such a thing

will be necessary, and had not winter been so close at hand plans would have been arranged for putting a shop in immediately.

At the Sheridan convention last week, Uinta county secured the \$50 prize for the best showing of illuminating oil. Just what we predicted; it would be a winner. It is the finest there is. Now the prize money will be used in connection with a fine oil exhibit from our field at the St. Louis exposition next spring. That's where our product will put all competitors in the shade. A good thing always gets to the front.

Last week fire destroyed the engine and boiler houses at the American Consolidated company's well on section 14. The machinery was somewhat damaged, but under the skilled workmanship of Charles Code has been put in shape and drilling is now on full blast and everything moves along smoothly. This company expects to bring in two wells on section 23 at any time. They are down 500 feet in one hole and 800 in another, in proven territory and can't fail to get good results. Their enterprising superintendent, T. O. Cremin, was in town Thursday on business for his company.

The trivial differences heretofore existing among the stockholders of the Jager Oil company, and which were brought about in Chicago, have been amicably settled, and Messrs. Hardin and Price will return in a few days to resume operations on the oil land holdings of this concern, which are considered among the best in the field and from which good results have previously been attained. The many friends of these gentlemen will be pleased to learn that they are again prepared for business under favorable conditions and we wish them success. At a meeting of the board of trustees of this company held at Chicago last Saturday, the resignations of Frank and John Jager as officers and trustees were accepted.—Wyoming Press.

#### Under-reamers For Sale.

We have for sale one or two each, of the different size Plotts Under-reamers in first-class condition. It will pay you to get our prices on these tools if you are in the market for under-reamers. Also we have one each of 5½ and 7½ Leidecker Under-reamers for sale.

THE LOMA OIL COMPANY,  
401 Conservative Life Building  
Los Angeles, Cal.

### AMERICAN CONSOLIDATED Oil Company

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13,750 shares of stock for sale at  
8 cents per share—par value \$1.00

P. W. SPAULDING  
ATTORNEY-AT-LAW  
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#### DIVIDENDS SOON.

Wouldn't you like to own some stock in a good mine that will pay dividends beginning with this month? Send for charts of the tunnels; plain, simple and comprehensive, showing at a glance what it would take many pages of printed matter to explain.

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Mention this paper.

Up-to-date maps of Kern River  
McKittrick, Sunset-Midway and  
Coalinga fields for sale at this of-  
fice. Large blue prints, \$1.50;  
small maps, 25 cents each.

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### Petroleum Curative Properties.

The curative properties of petroleum were known long ago, for in ancient times it was used in its crude state by the natives as a remedy for many ills—rheumatism, chronic skin inflammations, etc.

In later years when petroleum became the subject of scientific investigations, and its nature and the properties of its elements became to be better understood, a wide range opened itself out for the application of petroleum products for curative and prophylactic purposes.

We are now familiar with the antiseptic action of naphtha acids and the importance of the piridine bases discovered in petroleum lately. The importance of the anti-rheumatic applications of petroleum is likewise known, if we remember that certain of its components separately possess the property of causing an increased flow of blood to the affected part, and promoting a more successful healing.

Helmets, of Hamburg, has patented a method of receiving the so-called sulpho-acids, caustic earth salts, and the salts of heavy metals, which, besides their disinfecting properties possess also the property of being soluble in water. These preparations are obtained from the waste acid received by the refining of petroleum products.

Lately there has also been published the application of a preparation from petroleum as cure for stomach and abdominal complaints.

By his own experiments and ob-

servations the author has discovered another very useful property of certain component parts of petroleum, namely, its action to lower the temperature. The preparations extracted by the author possess a strong heat-reducing action on animal organisms without producing any signs of disorders in the bowels or other parts of the organism. With small animals, in course of 15 to 20 minutes, the temperature was reduced by 3 to 4 C. The author promises to shortly give particulars of the method of applying his preparations.—Petroleum Review, London.

### Ventura County Borax.

The Borate Mining company is now making regular shipments of borax from its property in the Frazier mountains to Bakersfield, a distance of seventy miles. The property is just over the line in Ventura county and the ore is hauled by traction engines. The borax is dumped through a chute very easily from the traction train into the Southern Pacific freight cars at Kern.—Los Angeles Times.

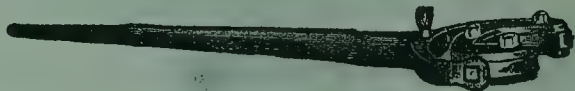
### Secretary of State Sued.

The organizers of the McCord Oil and Development company have brought suit for a writ of mandate compelling Secretary of State Curry to issue them a certificate of incorporation.

Curry refused to grant incorporation papers on the ground that Charles Edelman, before whom they swore to the truth of their articles of incorporation, was not a notary at the time the oath was taken.

### The Barrett Oil Well Swivel Wrench

For carrying and placing bits in drilling stem boxes



Drillers, to be successful, should use the best and latest appliances as it is LABOR, TIME AND MONEY SAVED.

It is only necessary to have one of these wrenches for all sized bits. You simply change the top plates, which have different size squares to suit different size bits. For sale by all dealers.

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## INQUIRY DEPARTMENT

Some months ago you reported the Columbian Oil and Asphalt company as worthy of confidence.

What is your report now?

The Columbian Oil and Asphalt company has just emerged from a series of perplexing lawsuits in which it was involved by the bad business judgment of a former superintendent. The judgments secured against the company have been paid off and released and the refinery at Carpinteria is again in operation and filling orders for asphaltum and other products. The company is entirely out of debt and has prospects of a successful future. It is operating the old Alcatraz asphaltum beds at Carpinteria at a good profit, in addition to its refinery. The recent lawsuit begun by the Mercantile Trust company of New York against the old Alcatraz company was in the nature of a friendly suit begun by William H. Crocker of San Francisco to clear title to the property upon which the Columbian Oil and Asphalt company is located and is in no sense inimical to the interests of the Columbian company but rather in its favor, as it will establish its title to the property.

### Modesto's Oiled Streets.

The street-oiling operations authorized by the city trustees, under the supervision of Trustee Hart, were completed Friday evening, says the Modesto Herald. Thirteen carloads of oil were used, the effect noticeably good notwithstanding that the streets were not specially prepared for the purpose. In fact, this initial work looked only to the laying of the dust. Next season all of the streets will be oiled, and in all likelihood steps will be taken to render the oiling part of a systematic plan that shall eventually give us streets with a semi-asphalt surface.

J street was oiled from the northeastern limits of the city to Fifth street; I street from Fourteenth to Fifth, excepting the block between Ninth and Tenth; H street throughout the city—from its junction with Cemetery avenue on the east to First street on the west; Ninth street from I, to G, Tenth street from I, to J.

The oil cost 62 cents a gallon delivered at Modesto, the aggregate cost \$1,142.30. Pumping and hauling cost \$15 per carload, and the labor required to apply the oil represented an expenditure of about \$160, the total outlay \$1,492.30.

Up-to-date maps of Kern River McKittrick, Sunset-Midway and Coalinga fields for sale at this office. Large blue prints, \$1.50; small maps, 25 cents each.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, October 21st:

### ASSOCIATED OIL CO. STOCK TRUST CERTIFICATES.

4,000 at 19..... \$ 760 00

#### AZTEC.

50 at 82½..... 41 25  
100 at 85..... 85 00

#### CARIBOU.

100 at 1 05..... 105 00

#### ESPERANZA.

300 at 1 40..... 420 00

#### GIANT OIL CO.

4,250 at 15..... 637 50

#### HANFORD.

1 at 134 00..... 134 00

#### HOME OIL.

200 at 87½..... 175 00

700 at 90..... 630 00

100 at 90 (B 30)..... 90 00

400 at 90 (S 30)..... 360 00

500 at 95..... 475 00

#### INDEPENDENCE.

1,600 at 20..... 320 00

1,000 at 20 (B 60)..... 200 00

5,137 at 20 (B 30)..... 1,027 40

1,000 at 20 (S 30)..... 200 00

4,000 at 20 (C)..... 800 00

1,000 at 21 (B 90)..... 210 00

#### LION.

3,000 at 04..... 120 00

#### MONTE CRISTO.

30 at 80..... 24 00

#### OCCIDENTAL OIL.

710 at 18..... 127 80

#### OIL CITY PETROLEUM.

2,300 at 28..... 644 00

30,478 Shares Amount \$7,585.95

#### NORTH SHORE R. R. CO.

100 at 7 00..... 700 00

100 Shares Amount, \$700.00

The monthly record of sales since January 1, 1903, is as follows:

	Shares.	Value.
January.....	267,019	\$255,202
February.....	322,443	219,358
March.....	199,908	151,982
April.....	236,268	115,571
May.....	401,454	154,386
June.....	154,720	117,928
July.....	74,594	71,890
August.....	181,478	119,231
September.....	146,123	74,455

### Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....	1.20	1.40
Apollo.....		
Asso. Oil Co Stk. Tr.		
Certificates.....		
Aztec.....		
Bay City.....		
Bear Flag.....		
California Standard.....		
Caribou.....		1.10
Central Point Con.....		
Chicago Crude.....	.19	
Clairemont.....	.24	.27
Esperanza.....	1.40	
Fauna.....		
Four.....		.69
Fulton.....	3.85	
Giant.....		.15
Hanford.....	131.00	135.00
Home.....	.90	.92½
Homestake.....		
Imperial.....		
Independence.....	.18	.19
Junction.....		
Kern.....		5.00
Kern River.....		14.00
Lion.....	.03	
Monarch of Arizona.....	.50	
Monicopa.....		.12
McKittrick.....		
Monte Cristo.....	.70	
Nevada.....	.30	.45
Occidental of West Va.....	.17	.19
Oil City Petroleum.....		.29
Peerless.....	13.50	14.00
Petroleum Center.....		
Piedmont.....		
Pittsburg.....		.35
Reed Crude.....	.41	.43
S. F. & McKittrick.....		3.00
San Joaquin O. & L.....		
Senator.....		
Shamrock.....		

Sovereign.....	.38	.41
Sterling.....	2.75	2.90
Superior.....	.05	.07
Thirty-three.....		
Toltec.....	.20	
Twenty-eight.....		4 40
Union.....		
United Petroleum.....		
West Shore.....		
Western Petroleum.....		
Wolverine.....		

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If You are going East call at the

## SOUTHERN PACIFIC INFORMATION BUREAU

and secure a copy of the booklet entitled "Electric Lighted, or Dollar for Dollar," descriptive of the new electric-lighted Overland Limited service. Adjustable electric reading lamps in every berth, telephone service at each terminal until hour of departure.

The New Electric-Lighted Overland Limited marks an era of advance in Railroad Equipment.

E. O. McCORMICK, T. H. GOODMAN,  
Pass. Traffic Mgr. Gen. Pass. Agent

## Southern Pacific Company

### Notice to Creditors.

Estate of William B. Winn, deceased.  
Notice is hereby given by the undersigned, executrix of the estate of William B. Winn, deceased, to the creditors of, and all persons having claims against, the said deceased, to exhibit them, with the necessary vouchers, within four months after the first publication of this notice to the said executrix at the office of William H. Waste, attorney-at-law, 906 Broadway, Oakland, Cal., which said office the undersigned selects as her place of business in all matters connected with the said estate of William B. Winn, deceased.

MARIA ROSA WINN,

Executrix of the last will and testament of William B. Winn, deceased.

Dated Oakland, September 28, 1903.

WILLIAM H. WASTE, attorney for estate, Oakland, Cal.

## UNION PACIFIC

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CHICAGO  
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7:30 A. M.—BAKERSFIELD LOCAL; Due Stockton 10:40 a. m., Fresno 2:40 p. m., Bakersfield 7:15 p. m. Stops at all points in San Joaquin Valley. Corresponding train arrives 8:55 a. m.

9:30 A. M.—THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:10 p. m.

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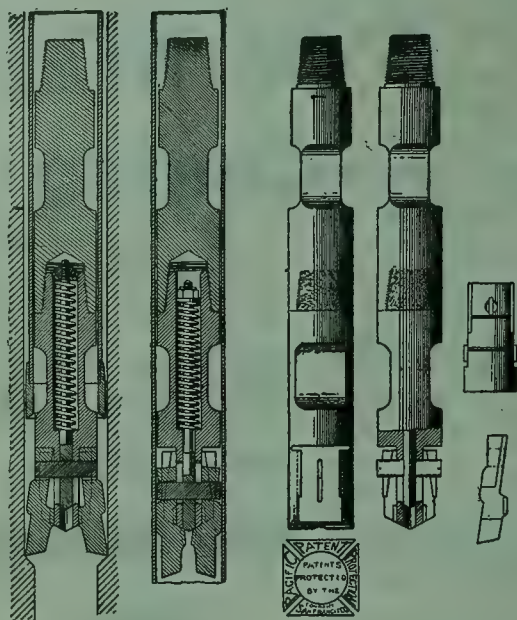
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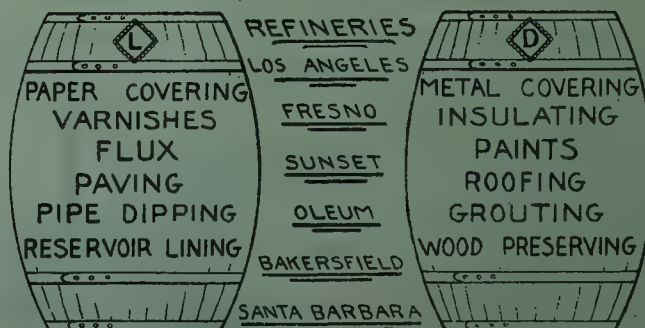
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SAN FRANCISCO, CAL., SATURDAY, OCTOBER 31, 1903.

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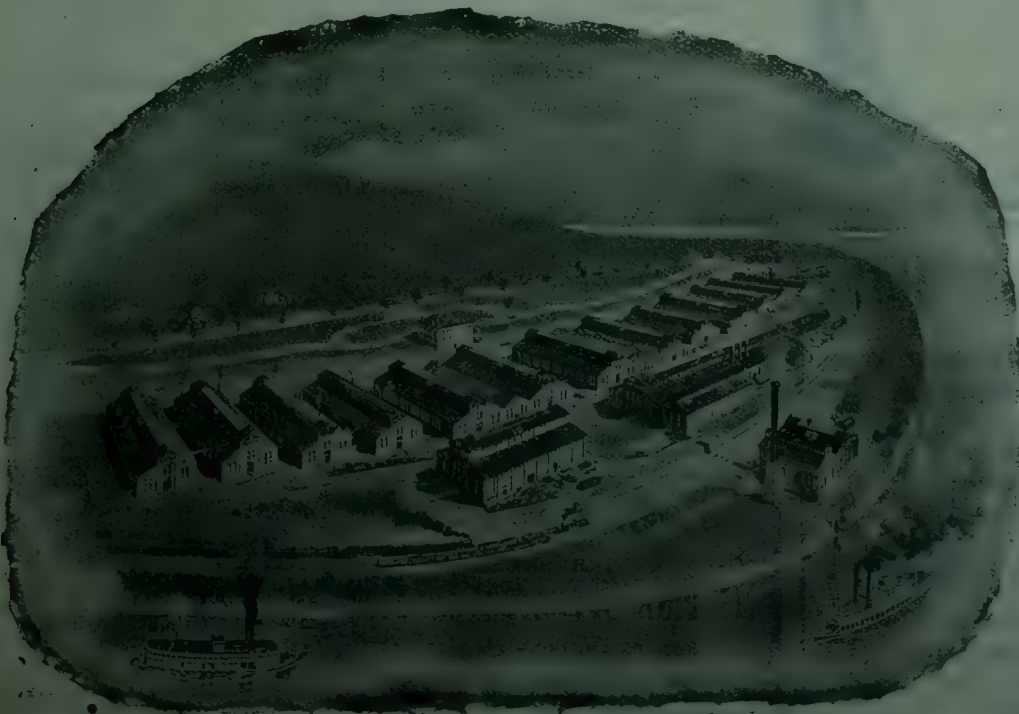
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 notice to the said executrix at the office  
 of William H. Waste, attorney-at-law,  
 906 Broadway, Oakland, Cal., which said  
 office the undersigned selects as her  
 place of business in all matters connected  
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**MARIA ROSA WINN,**

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# PACIFIC OIL REPORTER

VOL. 4. No. 52.

SAN FRANCISCO, CAL., SATURDAY, OCTOBER 31, 1903.

PRICE, TEN CENTS.

## PACIFIC OIL REPORTER

Published Weekly

The Oil Authority of the Pacific Coast.

Endorsed By California Petroleum Miners' Association

MRS. MARIA ROSA WINN, Proprietor.

U. M. THOMAS,

Editor and Business Manager

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## THE GREAT WEST SIDE OIL FIELD.

The special edition of this paper which will appear next week will without doubt meet the high expectations of its readers, and especially those who are directly interested in the Western Kern fields, which are to be written up in a manner never before attempted. The great oil belt which lies at the base of the Coast Range mountains in the western part of Kern county has never been differentiated in the public mind from the more widely known Kern River field at the base of the Sierra Nevada mountains in the eastern part of the county. They are entirely distinct and lie on opposite sides of the great valley or basin, separated by a distance of at least forty miles.

The West Side field, while in reality one unbroken belt, is known locally by different names as Sunset, Midway, McKittrick, etc. In fact there is an unbroken continuity from Sunset as far north as Coalinga in Fresno county, embracing within these limits the Midway, McKittrick, Temblor, Devil's Den, Avenal and Kregenhagen districts. It is possible to travel the entire distance within these limits without losing sight of a well-defined oil formation, and we believe the day is not far distant when the line of derricks will reach in an unbroken stretch from the northern limit of the Coalinga district to the southern line of the Sunset field. The possibilities of this great area of oil-producing territory are almost beyond comprehension.

The eyes of men everywhere interested in oil production are turned toward California and the time is opportune to exploit its possibilities as never before. There is no danger of over-doing the thing. The oil industry of California bids fair to soon outrank its mining industry. It is already a source of wealth scarcely comprehended by those who are not closely identified with it.

The "boom" days in oil stocks are gone, it is hoped never to return, but the industry is becoming established and its stability and prosperity will continue. Those who imagine that the days for making money in the oil business are over are badly mistaken. On the contrary, the time has just arrived. Oil land values are low and the opportunities are

abundant. The speculative fever has abated, and capital is seeking the industry as an investment. There is no other line of investments that offer as great inducements. The discouraging features of the business are insignificant compared with the possibilities. There is a bright day ahead for the California oil industry.

### Juggling in Merger Deals.

A striking example of modern "high finance" is seen in the testimony a few days ago of D. Leroy Dresser, former president of the Trust Company of the Republic, in his testimony in the legal proceedings affecting the ill-fated United States Shipbuilding company. By his disclosures light was thrown upon the methods by which millions are juggled and great combinations financed with mythical capital. Dresser told how Max Pam of Chicago, as attorney for C. M. Schwab, had threatened to have the account of the shipbuilding company transferred unless the Trust Company of the Republic would advance money needed by the company. He told how Harris, Gates & Co. had deposited several million dollars where it would be available for the shipbuilding company.

In this connection he said that after a pool of 200,000 preferred and 250,000 common stock had been placed in the hands of Harris, Gates & Co., it was agreed that none of this stock should be marketed until 25,000 preferred and 25,000 common, owned by J. P. Morgan & Co., and 75,000 of each kind owned by C. M. Schwab, had been first sold.

Dresser told also of his original agreement as president of the Trust Company of the Republic, to obtain the underwriting of \$3,000,000 of United States Shipbuilding company stock; how this was increased to \$4,750,000 by the failure of the French subscribers to pay up; how Mr. Schwab came to offer his Bethlehem works to the shipbuilding company, and how J. P. Morgan & Co. then came into the transaction.

He said he had been assured that France had taken \$4,250,000 in the underwriting of the shipbuilding company, of which \$27,000 was all that was ever paid.

Among the most interesting of Dresser's statements was the relation of the details of sale of the Bethlehem Steel company by C. M. Schwab to the shipbuilding company for \$28,000,000, of which \$10,000,000 was in bonds, \$9,000,000 in common stock, and \$9,000,000 in preferred. He said he had been under the impression that Schwab owned all the stock of the Bethlehem company. The only aid, he added, ever given by the Bethlehem company to the shipbuilding company was \$250,000, which was advanced to "pay certain interest due C. M. Schwab."

The financing of a modern underwriting syndicate is thus exposed under oath. The history of the past five years has been full of just such schemes and the investing public is growing weary of them. If Wall street keeps up such juggling with millions of other people's money, let it look out!

When writing to advertisers always mention the PACIFIC OIL REPORTER.

### OIL LAND VALUES.

It is no easy matter to place the value on a piece of oil land. A well known California oil operator recently stated that, in his opinion, \$30,000 was a conservative estimate of thoroughly proven land. Others place it as high as \$50,000. A large majority of the wells in California will produce over 100 barrels per day, and assuming that a well will produce 100 barrels daily, 100 barrels a day means 3,000 barrels a month, or 36,000 barrels a year. Say that you put down one well per acre, 36,000 barrels of oil at 25 cents per barrel would be \$9,000, or 18 per cent on \$50,000. At the present valuation of oil lands and taking into consideration the average daily production per well, the inducement to invest in this property is one of the best offered in the state of California. There is an inclination among business men not to use figures in estimating the value of oil land.

### ELLIS AGAIN.

We learn, in a roundabout way, that the Hearst estate is about to become interested in the Atlantic & Pacific Oil company, of Wyoming, and we pause and wonder if the trustees of the Hearst estate ever heard of the Ellis manipulation of the Home Oil company's stock. Mr. Ellis is the president of the Atlantic & Pacific Oil company, and we suggest that it might be well for the Hearst trustees to investigate thoroughly before they get an "elephant" on their hands.

### Scripper Once More Loses Contest.

In the contest case of the Bunker Hill Oil company et. al. vs. James E. Maxwell the commissioner of the general land office has affirmed the decision of the register and receiver rendered October 31, 1902, in favor of the contestants, says the Visalia Times.

The land involved is the northeast quarter of section 20, 28-28, in the Kern River oil field, on which Maxwell filed on January 17, 1900, a forest lieu selection. It appears that the land described was located September 1, 1899, as the Lexington No. 4 oil placer claim, the interest of the locators being subsequently acquired by the Bunker Hill Oil Mining company et. al., the contestants herein.

The commissioner holds that the geological formation of and the indications in existence of oil upon the land in controversy were such as to justify a mineral location thereof and that because of the location made and the possession maintained thereunder the tract was not under the act "vacant land open to settlement" as that term is construed by the department. For these reasons the decision of the local land office is affirmed and Maxwell's selection will be rejected and cancelled if this decision becomes final.

The Alma Oil company has made application for a patent of the west half of the June Bug placer mining claim, being W½ of N½ of SE¼ of section 4 and SW¼ of Fossil placer mining claim, being SW¼ of NE¼ of section 4, 29 28, in Kern county.

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# California Asphalt to the Front.

## Experts From Brooklyn and New Orleans Sent to Investigate Report Favorably.

Since the absorption of the Alcatraz Asphalt company by the American Asphalt company, and the consequent closing down of the former's extensive works in this county, most people in Santa Barbara have supposed that there was nothing doing in the asphalt business here, says the Santa Barbara Press. This impression is an erroneous one, for there has been a constant demand for the product from this section, which is said to be superior to that found anywhere else, not excepting that from Trinidad island, for street paving. One of the hardest blows the asphalt trust received when it was trying to crush the independent producers was when the city of Brooklyn, N. Y., let a large contract for paving with Goleta asphalt from the John F. More ranch. There has been a steady demand for the product of the More mine in all parts of the country and shipments have been going out with more or less regularity ever since the Alcatraz closed down.

The fight made by the trust against the Goleta article was a bitter one, even going so far as to send its own experts out here, no doubt with advance instructions to render an unfavorable report, to investigate. Mr. More would not allow them on his premises, and they went back and reported there was no asphaltum to be had here. But Mr. More telegraphed the authorities at Brooklyn to send their own experts out, which was done, with the result that the local product was used.

The recent action of the Philadelphia authorities in eliminating a clause from all paving contracts specifying Trinidad asphalt is another hard blow at the eastern monopoly, and gives opportunity for the introduction of the California product.

But news of the most important developments in this line comes from New Orleans, as it probably means the erection of a refinery at Goleta for the reduction of the crude product.

The following paragraph appeared in the last issue of the Chicago American Asphalt Journal, under New Orleans date line:

"Now, since the reception of Chemist Metz's telegram reporting so favorably upon the capacity of the Goleta mines, the question has arisen in the minds of many whether or not the crude asphalt will be shipped to New Orleans and refined here. Some time ago it was suggested that it would be a good proposition for both the city and company to establish a refinery at this point. It is probable such a plant will be built."

Mr. Metz was sent here some time ago by a paving company to ascertain whether or not there was enough asphalt obtainable at the More mine to pave three miles of streets in the city of New Orleans. His telegraphic report was "there is enough in sight to pave the whole city of New Orleans."

In a conversation with a representative of the Press, Mr. J. T. More stated that there had been no deal closed, but that he felt confident New Orleans would use Goleta asphalt in paving her streets. He also expressed the opinion that the refinery would be built at Goleta, as by so doing a saving equal to a ton's freight

would be saved on each carload shipped. The asphalt carries four per cent sand, and by removing this a corresponding saving in freight would result.

### To Make Oil Tests.

Prof. Clarence L. Cory, head of the department of mechanical and electrical engineering of the University of California, has been asked to serve on a commission which will undertake elaborate tests of much importance to science as to boilers operated with California oil. Four tests will be made of boilers manufactured by New York and Chicago companies. Each of the companies has appointed one expert to participate in the tests and these two engineers have selected Professor Cory to be a member of the board. These tests, which will be conducted in Los Angeles early in November, will involve a careful investigation in regard to the use of California fuel oils under varying conditions. Professor Cory's wide experience in dealing with large Power plants throughout the state has made him an authority on the problems connected with their conduct.

### Special Edition.

The special Sunset-Midway-McKitt-rick edition which was to have appeared this week has been delayed one week. A large number of fine views are being made for this issue, including up-to-date maps of the entire West Side Kern fields. All matter intended for the edition should reach this office not later than next Wednesday.

### Petroleum Gas.

A process for manufacturing gas from petroleum has recently been patented by Mr. R. Reid of South Yarra, Melbourne. In its manufacture only a small apparatus is used consisting of a receptacle for holding petroleum with a pipe leading into what appears to be a mere box placed on a common spirit stove. There the fluid is heated and transmitted in the form of gas along another pipe through a tin of water, where it is purified. The gas then passes into a gas holder, whence it is conducted by means of pipes to any spot desired. An exhibition was given a short time ago at Hamilton, the experiment being made with an incandescent burner. One jet in the room was lighted with the new gas, while the corresponding jet was served with ordinary coal gas. Using the Welsbach burner and mantle, it is claimed that a light of 75 candle-power can be obtained at a cost of one penny per hour's burning. With the petroleum gas only one hole is pierced in the burner, the air hole being correspondingly increased owing to the gas being so rich in carbon. It is stated that the new gas can also be used for cooking and heating.

The subscription price of the PACIFIC OIL REPORTER is \$2.50 per year.

## Stranger Things Have Happened.

Speaking of recent raids on Pennsylvania railroad stocks, the New York correspondent of the Philadelphia North American says: "Unexplained and savage attacks on Pennsylvania Railroad shares and upon other stocks to depress the price of Pennsylvania have led hitherto skeptical bankers to credit the reports that the Standard Oil clique is 'going the limit' in order to capture control of the railway. Investors are being frightened out of their holdings, and no scheme is permitted to go untried to 'shake out' stock. The Rockefellers subscribed for a large part of the underwriting of the recent issue of new Pennsylvania stock, and are believed to have coveted control of the rich property ever since the beginning of the Pennsylvania-Gould fight. They are understood to be allied with George Gould, and those affiliated with them in the oil monopoly constitute the only group of capitalists who today could command funds to buy the major part of the enormous share capital of the big railroad. No railway stock is harder to 'scare out' than Pennsylvania. There are about 35,000 holders of stock, and the greater part of it is carried for the income it yields, regardless of the market price. It is doubtful if control could be purchased in the open market in a series of years, and a majority in the board of directors could not be changed in less than three years. Nevertheless the persistent hammering of the stock has led many to lean toward a conclusion that the attempt to get control is being made, and that historic Standard Oil methods are being used to further the scheme. A majority of the Pennsylvania stock would give control of the Baltimore and Ohio, Norfolk and Western, Chesapeake and Ohio, Reading, and the Cambria and Pennsylvania Steel companies."

### Oil in Montana.

Word comes from the Flathead oil district of northern Montana that oil and water are now flowing from the well being bored on the eastern border of that section by the Butte company, and that those interested are now fully satisfied that a large body of oil will be penetrated with additional depth. The company intends to put in another rig and begin boring another well several miles to the west of their present well and at a point about the center of the valley that constitutes the oil field. The Canadians have been doing a great deal of surface prospecting on their side of the line and have had a number of experts making thorough examination, and those concerned are wildly enthusiastic over what they assert is as sure a thing as though it was fully developed by deep wells, and are impatiently waiting for the decision that will allow them to locate the lands. These lands are in dispute between the government of British Columbia and a local branch of the Canadian Pacific, the latter claiming them under a grant.

### There's Millions In It.

The successful oiling of California highways has suggested the possible oiling of irrigating canals to make them hold water better and so avoid losses by seepage. The profit that may be derived from this suggestion, if successfully carried out, is immeasurable. Extension of irrigation facilities to other lands in this state must come mainly through perfection of the irrigation systems already in existence, and any feasible plan for making the irrigating canals water tight should be hailed like going out to meet the Prodigal Son. There are, just as likely as not, millions in that idea.—Oakland Herald.



**Report No. 6, Fulton Oil Company.**

SAN FRANCISCO, CAL., Oct. 26, 1903.

To our Stockholders in annual meeting assembled:—

In Fulton Report No. 5, under date of September 11, 1903, it was stated that Fulton wells No. 1, 3 and 4 were to be perforated on September 12th. Fortunately, however, before the work of perforation began, the tools in No. 4 sank down through the shell in which it was intended to land the drive pipe, and penetrated a very rich stratum of oil sand below, which proved to be 262 feet thick. Of course drilling was renewed and it was continued until the bottom of this stratum was reached. When completed, this well had penetrated more than 291 feet of oil sand, including the 29 feet found before the strike above referred to. The striking of this important stratum of oil sand has proved the lands of Fulton Oil company to be many times as valuable as was formerly believed. No. 1 has since been carried down in the same way as No. 4 and with the same result; and No. 3 is now being deepened. The report of Superintendent

road from Sunset station across the land of this company to and beyond the town of Maricopa.

The Jewett & Blodget companies have purchased piping for the construction of their pipe line, which will extend from Sunset station across Fulton lands. Much of said piping has been shipped and will soon be received and laid.

Respectfully,

JOHN M. WRIGHT,  
President.

**The Standard's Pipe-Line.**

"The Standard Oil company has been making experiments in reference to the pumping of oil through its pipe-line from Bakersfield to Point Richmond, and the result of the tests gives strong probability to the report that the company will build a second set of pumping stations all along the line, midway between the present stations. Some three months ago the engineers of the company built a tank for a test midway between the Bakersfield station and Pond. This test, which has just been made, has developed the fact that the capacity of the line at a distance of fourteen miles from a pumping station is equivalent to 25,000 barrels a day. The greatest capacity with the

**Mystifying the Average Investor.**

The financial world is always learning something. It is a cold day when some new scheme for the mystification of the investor is not discovered. One of these remarkable inventions which has been altogether too prominent in the last two or three years is the "trust fund" scheme. The advertising of the companies interested in this new idea usually cites that their clients cannot lose money for reason that the business is based upon a "general average." The plan upon which these companies work seems to be about as follows: They engage with oil and mining companies, becoming their fiscal agents, and take from a quarter to one half of the stock of such companies and place it into what is known as a trust fund. They protect their customers, as they say, by providing that when a customer buys certain shares of the stock and the stock proves worthless, they will exchange the worthless stock for stock in the trust fund. It is not exactly clear why this trust fund stock, which has never been paid for by any one, and is really the unsold



Wells of the St. Paul-Fresno Oil Company, the Pioneer in the West Side Extension, Coalinga.

Cook on 23rd instant showed this well drilling at 980 feet and "in rich oil sand." The same report showed No. 5 drilling at 560 feet and No. 6 drilling at 310 feet. No. 2 must be re-drilled, but this work cannot be started until a set of drilling tools is released by the completion of 3, or 5 or 6.

The work of roofing reservoir No. 1 is about completed, and as soon as this reservoir can be sealed, wells 1 and 4 will be perforated and their product will be turned in; and the same of the other wells in their order as completed.

The lumber is on the ground for roofing reservoir No. 2 and the work will be done immediately.

A bunk house is being constructed and other buildings will follow as needed.

Arrangements have been made for the sale of 5,000 shares of the remaining treasury stock at \$5 per share, and no difficulty is anticipated in disposing of the remaining 5,000 shares at the same price.

With these sales completed the property will be in a condition to take care of itself.

The Santa Fe Railroad company has secured its right-of-way for the extension of its

pumping stations twenty-eight miles distant is 7,000 barrels a day, in hot weather. In cold weather this falls as low as 4,000.

"This only applies to the Bakersfield oil. The Coalinga oil, which is much lighter, enters the main line at Mendota, and it goes through at the rate of 25,000 barrels a day."

The above article appeared in the Fresno Republican on last Sunday. Questioned about the truthfulness of the statements contained therein, the Standard (Pacific Coast Oil) officials disclaim any knowledge of the facts. That the company has been making tests and experiments with the line they do not deny, but they claim that if the public knows what the outcome is to be it is ahead of them. They admit that the pipe-line at present is supplying the big refinery with all the oil—that is needed, but as to what changes, if any, will be made in the line or the pumping stations, that matter has not yet been decided by the officials of the company.

The PACIFIC OIL REPORTER is the only exclusive oil paper on the Pacific Coast. More than that it is the only weekly paper in the United States devoted EXCLUSIVELY to the oil industry.

stock of various and sundry oil and mining companies, should be worth anything as a substitute for anything else. Is it reasonable to suppose that any firm is going to exchange something that is worthless for something that has a real and tangible value? The idea that the brokers would do this sort of business ought to be so palpably false to any investor as to need no elucidation from us. A company organized in New York three years ago has seven mining and one oil company in this trust fund, and yet only four of them have received as much for their ore and oil sales as it costs to operate the plant. The others receive less from the sale of ore and oil than operating expenses, yet in the statement of the company all are listed as dividend payers. As a matter of fact the dividends, if there were any, were paid out of the sale of capital stock, and the investors who have their money in the four unprofitable companies will never see a return. This substitution evil is as bad in investments as it is in groceries, and the juggling done in brokers' offices under this new and sometimes plausible scheme is certain in the end to be a great injury to the business.—Bonds and Mortgages.



## NEWS FROM THE FIELD

Supplied by our Regular Correspondents

### Coalinga Letter.

COALINGA, Oct. 27, 1903.

Keystone No. 1 spudded in last Saturday.

The Union Oil company is now running two strings of tools and are pumping from one well located on section 13, 20-14.

At a regular meeting held on the 20th inst., the Commercial Petroleum company levied another assessment of \$1 per share.

The tank-builders for the Pacific Coast Oil company are in the field constructing two 3,000-barrel iron tanks at stations 1 and 2.

The Pennsylvania Oil Mining and Development company, Commercial Petroleum company, Section Seven Oil company, will each begin drilling on a new well this week.

The Pleasant Valley, Stock Farming company spudded in on its No. 2 last week. No. 1 well is now in the sand and it will be only a very short time before it will be finished.

The name of the Giant Oil company has been changed to the Coalinga-Banner Oil company. This is a newly organized company that will begin operation in the SE  $\frac{1}{4}$  of section 14, 20-14.

Dr. J. L. D. Roberts, of Seaside, is in the field looking after the operation of a company that has recently taken a lease of the NE  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of section 6, 21-14 from the original locators. Work on the rig has already begun.

R. C. Baker spudded in on well No. 2 on the St. Paul lease. Mr. Baker has recently constructed a 5,000-barrel reservoir into which he is pumping from his No. 1 well. The Southern Pacific company are going to lay a line to his lease as soon as the main line to section 7 is completed.

C. H. McKevitt of Santa Paula, Kam Graham and S. L. De Garmo of Los Angeles are the men who purchased the N  $\frac{1}{2}$  of section 36, 20-14 from the Valley Slope Oil company for a consideration of \$36,000. We understand that the purchase is for speculation and that no drilling will be done in the near future as erroneously reported.

The Peerless Oil company that has purchased the NW  $\frac{1}{4}$  of section 22, 19-15, will begin building a rig immediately and start drilling. Mr. J. H. Pierce will have charge of the company's operations in this field. Mr. R. C. Baker has sold to A. P. May the S  $\frac{1}{2}$  of the SW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  and the S  $\frac{1}{2}$  of the W  $\frac{1}{2}$  of the SE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of section 14, 20-14.

Considerable work is being done deepening wells by the Twenty-eight Oil company, the Caribou Oil company and the California Oilfields, Limited. Twenty-eight Oil company is now deepening one well and when this is finished will promptly begin deepening another. The Caribou will deepen its three wells and the California Oilfields Limited will begin to deepen one this week.

Again the rumor of forming a briquette company in this field is current. We understand that Hanford parties are interested in the movement to establish such an industry at the southwest end of the field utilizing the partially developed coal mines of the San Joaquin Valley Coal Mining company in section 26, 20-14. Negotiations for the purchase of that property are now under way.

Grading for the 20,000-barrel storage tank

for the Esperanza Oil and Gas company is nearly done. Work at this lease is booming. Drilling on No. 4 will commence during the week. No. 3 has just been cleaned out and is now producing fairly well. It is the intention of the company to continue drilling until eight more wells have been added to the present list which will undoubtedly make the company one of the largest producers in the field.

Section Seven Oil company's No. 1 well has been tubed with three-inch tubing and a packer put in and for the past week has been producing at the rate of about 1,500 barrels per day. The company is waiting on a packer for No. 2 when it will be fixed up for production. Although No. 2 has not been very active, the indications are most favorable that it will be a big producer as soon as it will be put to producing. Drilling on No. 3 will begin the last of the week. Messrs. Fitzpatrick and McCombe have taken the contract for it. The company is also planning to drill a water well in the near future.

Dr. Alexander Dallas, of Bayonne, N. J., who is the president of the Caledonian Oil company has been in the field for two weeks in the interests of his company. The company is now down 1,350 feet failing to strike the sand. No. 2 well has been shut down, and an effort will be made to shut off the water in No. 1 in the first sand. The future course of the company will be determined at the regular quarterly meeting of the board of directors to be held in New York city next month. Both this company and the Blue Diamond expected to strike the main oil sand at a depth not exceeding 1,000 feet, but failed even at several hundred feet deeper.

R. M. D.

### Big Kentucky Well Reported.

The Westmoreland Oil company has been apprised of another big oil strike in its territory near Burjesville, Cumberland county, Ky. Oil was struck at 600 feet. There are 250 feet of oil in the hole, and it is impossible to bail it out fast enough. It is estimated that the well will produce between 150 and 200 barrels daily.

### Old Bit and Slips.

The bit and slips shown in the cut are unique from more than one point of view. They were recently dug out of the old "Brigham Young oil pool," an oil spring well known to those interested in Wyoming oil development, and were found some forty feet below the surface. In the year 1866 a number of persons, Brigham Young being one, became interested in producing oil from this spring, which had attracted much attention while the emigrants were trailing over the plains, as they had gathered the oil from the spring and



used it for many purposes. A drilling outfit was secured, being the old spring-pole type, and a well drilled forty feet deep, at which point the above illustrated tools were lost. In 1902, after the great excitement caused by the discovery of oil in a water well by the Union Pacific Railway company, another attempt was made to develop oil in this spring, at which time these tools were found. The bit weighs less than thirty pounds and has a square joint and is a pigmy compared with the giant drills of today. The tools are on exhibition at the office of the Oil Exchange, Evanston, Wyoming.

# WE MAKE TANKS

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For oil, water and fuel purposes. Estimates cheerfully given on any kind of tank. Being situated near the Coalinga fields, we are in a position to make extremely low prices. We have supplied nearly every galvanized iron tank now in use at the Coalinga oil fields.

**KUTNER, GOLDSTEIN CO.**  
**HANFORD**



## Protecting Piles With Crude Oil.

By A. S. Cooper.

The following described patented invention is a device and apparatus for the protection and preservation of wooden bridges, jetties, piles, harbor works, etc., from the ravages of the limnoria toredo and other marine worms and bugs.

The limnoria infests the piles between high and low water marks. Their principal ravages are half way between these marks.

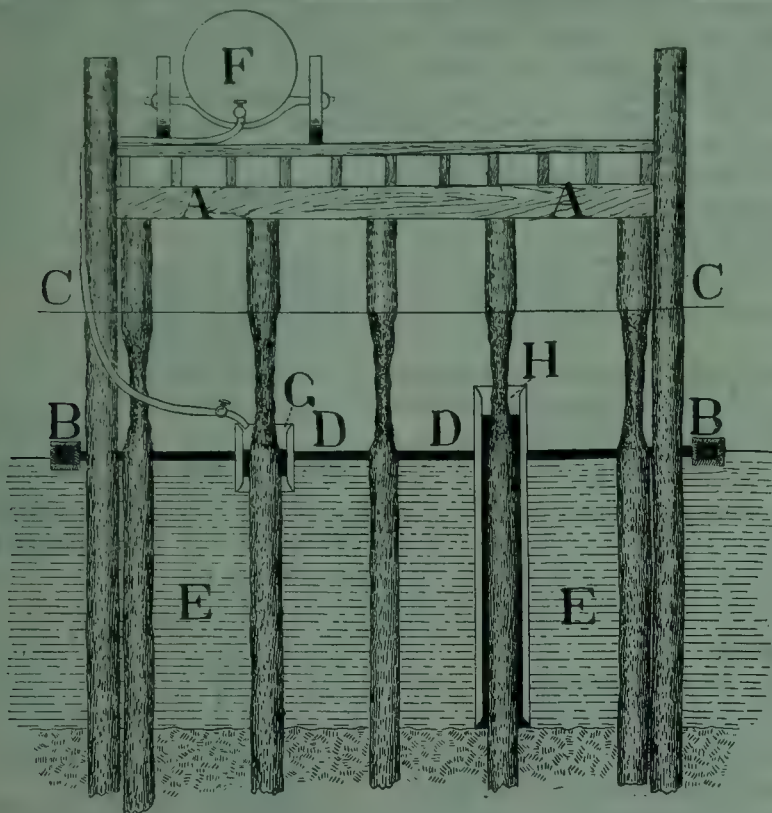
When the limnoria are not present the teredo infests the piles below high water mark and the bottom of the water. When limnoria are present the teredo occupies the pile below low water mark only. This is owing to the fact that the limnoria destroys the habitation of the teredo.

With the destruction of these bugs and

Figure 1 is a sectional view of a wharf the piles of which are surrounded by a floating frame B B which serves as a dam to confine the floating substance D D so that the substance covering the water with a thin film remains in contact with the piles.

The dam need not in all cases surround all the piles for as shown at G Figure 1 it may be applied to each single pile.

In Figure 1 high water is indicated by the line C C. It will be readily seen that by the constant rise and fall of the tide together with the ceaseless action of the waves the layer of oil confined by the floating dam will coat the piles throughout that portion which suffers from the limnoria. The persistent labor of lower animal life will be stopped and the future destructive action of marine life prevented.



Wharf, Showing Method of Applying Oil to the Piles.

worms in view the invention consists in a means for protecting and preserving the pile, comprising a floating substance of any suitable character, noxious to said insects, bugs or worms and a dam of suitable character to confine said substance about the pile. A good substance is a heavy petroleum oil or asphaltum dissolved in a distillate in order to make it light enough to float on water and sticky enough to attach itself to the pile. After the pile is coated the distillate evaporates leaving the pile coated with asphaltum. Other poisonous materials may be added such as creosote, carbolic acid, etc.

The dam in its best form is a floating one.

A barrel of crude petroleum will coat 1,344 feet of surface one-twentieth of an inch thick, or seventy-two piles one foot in diameter and six feet between high and low water marks. The cost of labor will be small and most of the work is done by the tides.

### The Union's Pipe Line.

The Union Oil company, putting down several wells along the Lompoc anticline, has abandoned the idea of running its pipe line to the old Lompoc wharf site because of the danger and uncertainty of landing vessels in the fall and winter season. The risk of danger is too great to hazard the attempt to estab-

lish that as a general and only point of export of the crude product the management is confident of securing along this anticline on which it owns fully 100,000 acres of land, bought for its supposed oil deposits, and on which oil has been secured in well Nos. 1 and 4, with Nos. 2 and 3 showing up well, and nearing the depth where oil has been secured in 1 and 4.

The company has changed its plan of reaching a landing with its proposed line south of Port Harford, and is now arranging to lay a six-inch main from well No. 1, over the Los Alamos hills via Harris station to Port Harford, with four-inch laterals extending to all sections of its territory where oil shall be secured in future. There will be little or no dependence placed in the force to be secured from gravity, since every dependence will be put and placed in the pump, that there may be no hindrance in delivering the product on time for shipment. All the oil secured south of the Los Alamos range will have to be forced over the elevations, which the company have no doubt will be successful.

It is calculated that all four wells will come in within a few weeks if nothing unforeseen happens, and the pipe line is expected to be in operation to receive oil within a very limited period. It is quite probable that most of the oil produced in all the region north and south of the Los Alamos mountains will be bought by this company and go out by way of Port Harford, which will then become the chief port of export for the largest oil territory in the known world.

A prominent oil man connected with this field said to the Record management a few days since: "That it would not be many years before several hundred producing wells were likely to be secured, and that through the business and industry and cognate industries, northern Santa Barbara would become more populous and prosperous than the southern portion of the county." This gentleman also said that he expected to see Lompoc a town of five thousand population inside of ten years, because there was no other eligible point south of the range where a town could be started to interfere with its growth, or the start toward cityhood already made.—Lompoc Record.

### Tests of Fuel Oil.

The annual report of Rear-Admiral C. W. Rae, chief of the Bureau of Steam Engineering, for the fiscal year ended June 30th last, says:

"The report of the liquid fuel board when published, will be of estimable benefit to the maritime and naval world, and will show the far-reaching benefit of careful experimental investigation. Neither in extent nor in character have these tests been equaled either at home or abroad, and the bureau feels assured that when the results of the experiments are made known that the necessity and advisability of conducting extended investigation in other directions will be made manifest."

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# Clark May Buy Whittier Fields.

Purchase Price Will be in the Neighborhood of  
\$1,500,000.

In oil circles the rumor is persistent that additional capital—and this capital is measurable only by millions—will become largely identified with the oil industry of Southern California, says the Los Angeles Herald. From Whittier comes the information that experts for several days have been examining the oil lands and property controlled by the Central Oil company, and that a report will be submitted to the representatives of Senator W. A. Clark.

Officers of the Central Oil company, when questioned in Whittier regarding this rumored deal, admitted sufficient to indicate that negotiations are in progress. When the details of the transfer are completed the purchase price will involve not less than \$1,500,000. This will be, if consummated, the largest oil deal since the transfer of the Pacific Coast Oil company to the Standard.

In oil circles this information is based on the fact that Senator Clark is fast completing his railroad to Salt Lake, and that in a few months he will be an active consumer of crude oil for steam purposes. In order to be in a position to supply his needs for fuel purposes, some oil men say that Senator Clark is taking the commercial conditions by the forelock, so he will not, when the proper time arrives, be found short of fuel for his Salt Lake and Los Angeles railroad system.

When J. Ross Clark was asked regarding these pending negotiations that gentleman was prompt in his denial, but other oil men, who are in close touch with local oil conditions, are of the opinion that the logical sequence to the railroad situation is that, to be a keen competitor of the Santa Fe, and, to a certain extent, of the Southern Pacific, the president of the San Pedro, Los Angeles and Salt Lake railroad must enter the oil producing field, as have these two other corporations, in order to insure a supply of oil.

The Central Oil company is the pioneer oil company in the Whittier field, having been established in 1895 by Neuer, Lacy & Stone, who secured from the Pickering Land and Water company a lease on 2,700 acres of hill land. The first well was completed in 1896. The company now has about forty producing wells, each averaging about 1,000 feet in depth, with a production that will approximate 20,000 barrels a month. The quality of the oil in the Whittier field is far above the average of California crude oil, and at the price obtained a well producing fifty barrels a day proves exceedingly valuable. Whittier oil runs from 18 to 23 gravity, and much of it is sold to refineries, commanding about 40 cents per barrel more than the Los Angeles and Kern River product.

## Report No. 51, Peerless Oil Company

To our stockholders in annual meeting assembled:—

With the completion of well No. 27, just finished, our production is brought up to something over 5,000 barrels per day. Except for the collapse of the casing in wells 3, 17, 22 and 25, undoubtedly our production would now be 6,000 barrels per day, because the

time spent in re-drilling these wells would have been spent in drilling four additional wells. Some of our present wells will be improved in such a way as to increase their production. Work at wells 28, 29 and 30 is already in progress. These wells will be completed as soon as possible and others will follow.

The question is asked frequently whether there is any indication that the general product of our wells is falling off. The best answer to this is that No. 6, which is about 250 feet shallower than we drill our wells now, being only 935 feet deep, continues to produce steadily the same as when it began pumping in April, 1901, and Nos. 7, 8, 9 and 10 produce as well as at any time since they were drilled. It will be remembered that 6, 7, 8, 9 and 10 are our oldest deep wells.

Beginning with No. 27, all wells will be finished with drive pipe, and this will be an insurance against any further "collapses of casing."

Since the issuance of Report No. 50 on June 4, 1903, the following improvements have been made at Kern River Peerless wells:

1. Five new wells have been completed, giving us 27 producing wells.

2. One additional 70-horse power boiler has been set up at power station No. 1. Five additional 70-horse power boilers have been ordered and will be set up at the middle of our northwest forty acres and will constitute power plant No. 3.

3. Work is now in progress at our old well No. 3, which is being changed into a water well, to be known as water well No. 5.

4. A boiler house and a pump house have been ordered at our principal pumping station.

Early in the current year a well was drilled on the Midway-Peerless property by contract to the depth of 1,050 feet. The completion of this well has been ordered and the work will be done before the close of the calendar year. No more than one well will be drilled on this property in the near future for the reason that no facilities for oil transportation have been furnished to the neighborhood.

After careful investigation this company has secured from the Muntjac and Ibex Oil companies leases on and options to purchase their lands constituting the northwest quarter of section 22, Tp. 19 S., R. 15 E., in Coalinga district. This land lies north of and adjoining the Caribou quarter of the same section and in relation to the wells of the Caribou, California Oil Fields, Ltd., 28, Independence and other companies, gives it great promise as oil territory. Preparations for the sinking of a first well are now in progress and the work of drilling will begin at an early day. This first well has been located the same geologically as well No. 3 of California Oil Fields, Ltd., on section 21.

During the year ending September 30, 1903, our wells produced 1,221,142 barrels, of which 40,781 barrels were used in our operations at Peerless wells and 1,180,361 were sold for the gross price of \$231,762.

Our greatest indebtedness at the end of any

month during the year ending September 30, 1903, was \$92,510, at the end of June, 1903. At the end of September, 1903, it was \$79,047.

A statement of our cash receipts and disbursements during the year ending September 30, 1903, is attached to and made a part of this report. Respectfully,

JOHN M. WRIGHT,  
President.

## PEERLESS OIL COMPANY.

Statement of Cash Receipts and Disbursements During Fiscal Year Ending September 30, 1903

Cash on hand October 1, 1902.....	\$ 8,656.61	
RECEIPTS:		
Pacific Coast Oil Co. for oil....	224,209.28	
Pacific Coast Oil Co., part pay't		
Storage & Delivery Plant....	17,500.00	
Sales Dep't for oil, and on acc't	65,559.23	
Sovereign Oil Co., for rental		
pipe-line and phone.....	3,931.38	
Bills Payable, Anglo-Cal. Bank	30,000.00	
Bills Payable, J. C. & E.		
Coleman.....	10,000.00	
J. M. Wright, Temp. Adv'nces.	18,839.00	
Fulton Oil Co., Repaying		
Advances.....	41,070.44	
United Oil Producers, on acc't	152.27	
E. C. Peck, damage to mare...	100.00	
Office Furniture sold.....	31.00	
Total Receipts.....		411,392.60
		420,049.21

DISBURSEMENTS:		
Real Estate (7,000 for Midway		
Peerless Land \$3,000 on acc't		
of Refinery Site & \$500 on		
acc't Coalinga-Peerless Land)		10,500.00
Permanent Improvements:		
Wells (Water Wells & Oil		
Wells).....	42,651.64	
Power plant No. 1.....	2,594.43	
Power Plant No. 2.....	2,841.10	
Tankage.....	16,971.11	
Pipe-Line.....	928.07	
Buildings.....	3,430.60	69,416.95
Midway Well No. 1.....		6,000.00
Personal Property:		
Office Furniture.....	48.00	
Drilling Rigs.....	132.98	
Tools and Apparatus.....	11,845.10	
Casing on hand & paid for....	744.86	12,770.94
Expense Accounts:		
General Expense.....	8,668.71	
Salaries (including Super-		
intendence).....	10,425.00	
Operating Expense.....	24,077.02	
Dividends.....		137,000.00
Sales Department.....		37,622.40
Anglo-Calif. Bank, in pay't of		
borrowed money.....		32,000.00
American Nat. Bank, in pay't		
of borrowed money.....		7,500.00
Fulton Oil Co. advances.....		41,070.44
John M. Wright, Repaying		
advances.....		18,839.00
Sovereign Oil Co., for phone		60.00
Total Disbursements.....		415,950.46
Cash on Hand Sept. 30, 1903..		4,098.75
		420,049.21

## Absorbing the Smaller Companies.

The Texas company, of Beaumont, has just secured judgment by default against a number of smaller Spindle Top companies, and is in practical possession of the property of these concerns. The Texas company has been taking possession of these properties ever since it was organized, and is gradually absorbing most of the Spindle Top that is not owned by the Guffey and one or two other big concerns. The companies included in the latest list are: Horse Shoe, judgment for \$80,000 and costs; Globe, \$80; Guarantee, \$80,000; Cascara, \$100,000. The companies are insolvent and their charters have been forfeited by the state.

The PACIFIC OIL REPORTER \$2.50 per year.



### The Theory of Lubrication.

The recently published book from the abel pen of Mr. W. M. Davis on "Friction and Lubrication," to which we referred last week, contains much of a valuable nature upon the subjects treated with. The theory of lubrication is dealt with by the author in a very interesting style, the following extract having been taken from the important treatise:—Lubrication, as it is considered in mechanics, is the application or introduction of a smooth fluid substance, preferably an oil, between two hard moving surfaces that will keep them from coming in direct contact. Unless the surfaces are kept apart by some medium, the asperities and irregularities which exist on all surfaces, no matter how hard or smooth, will interlock, and the friction caused in tearing them apart and wearing them down will generate heat. The action of a lubricant is to flow between the close fitting surfaces, filling up the interstices and covering up the high spots, acting as a cushion and taking and carrying it off instead of allowing it to be absorbed by the wearing surfaces. To do this properly, a lubricant should have certain properties, it should be of a fluid nature so that it will flow readily between surfaces that are close fitting and under heavy pressure. It should possess a certain amount of cohesiveness, or viscosity, as it is usually called. By cohesiveness is meant the property of a substance to cling to its own particles. Viscosity is understood as the degree of fluidity that an oil possesses, or the resistance opposed by its particles to their separation.

Oil should have good adhesive properties in order that it will cling well to metallic surfaces. By adhesion is meant the property of a substance to cling to other than its own particles. It should be high in flash test in order that whatever heat it is subjected to will not cause it to give off an inflammable vapor. It should have a cold test of such degree that it will remain fluid at low temperatures. The above requirements will be found embodied to the greatest degree in the various kinds of vegetable, animal and petroleum oils. The first oils used in the lubrication of machinery were vegetable oils, such as castor oil, palm oil and olive oil; and animal oil such as lard, neats foot, tallow and sperm oils. All these oils, while in many respects excellent lubricants, are not now used to any extent since the introduction of petroleum or mineral oils, for the following reasons:—First, on account of their higher price as compared with petroleum oils. In recent years the processes of refining petroleum have been brought to such a state of perfection that they have almost entirely driven the animal and vegetable oils from the market as lubricants for machinery. Second, being organic origin they absorb oxygen from the atmosphere, and in time become rancid, thick and gummy. These oils are of very poor cold test, thus making them inconvenient for use in cold weather.

Petroleum oils have many advantages as lubricants over animal or vegetable oils. First, is their cheapness. Second, being of non-organic origin, they do not change their condition; do not become rancid, thick or gummy by constant exposure to the air, and have no corrosive action on metals. Third, by what is known as fractional distillation, they can be separated into a great many different grades, from the highest spindle oils to the dense, heavy cylinder oils. Fourth, they are of lower cold test, and there is not the liability of spontaneous combustion as with animal

oils. The engineer in charge of a plant will find on the market a wide range of petroleum lubricants to choose from to meet various conditions which will arise in the proper lubrication of his machinery. The conditions which produce the greatest differences in ordinary lubrication are the natural quality of the lubricant, the nature and conditions of the wearing surfaces, the speed and pressure and the temperature. Variations of friction of lubricated surfaces occur with every change in the condition of either the bearing or journal surfaces, or of the lubricant applied to them. The ordinary facilities of the engine room do not usually afford means to make elaborate tests of the coefficient of friction of various oils, nor would such tests be of any practical value to an engineer, as they can only be made with any degree of accuracy on expensive testing machines built expressly for this purpose, which are very little used except in the laboratories of the technical schools and the testing rooms of a few large railroad companies and manufacturers of oil. But an engineer can often make valuable comparative tests of different grades of oil on the ordinary machinery of the engine room, for instance, a difference between two oils of several degrees in the temperature of a bearing of an engine or a dynamo may be detected by means of a thermometer placed in the bearing with the bulb resting on the shaft or immersed in the oil chamber.

In tests of this kind care must be taken that the rate of oil feed, the belt tension, the pressure on the bearings and the speed remain constant; an allowance should also be made for any difference in the temperature of the room during the tests.

One of the essential points in lubrication that the lubricant be made to reach every part of the contact surfaces, and in connection with lubrication one may assume an oil to have the nature of a mass of globular molecules or atoms, which roll on each other and the wearing surfaces, and are carried or flow between the close fitting surfaces and form an elastic coating to the metal, which becomes thinner as the pressure increases or the temperature rises, and thicker as the pressure decreases or the temperature falls, and absorbing whatever heat may be generated and carrying it off.

The best lubricant for a bearing under normal conditions may not do so well when heating commences, a thick viscous oil, which under ordinary conditions on high-speed machinery would be comparatively wasteful of power, is often an excellent lubricant for a hot bearing, and for the following reason: an engineer on finding a bearing heating up will apply the ordinary oil freely, and at the same time loosen up the bolts, so as to allow for increased expansion and free oil flow; if the heating continues, and the engine or machinery must be kept in operation at all hazards, he will turn to his cylinder oil, apply it freely, and often with good results. The reason for this is that the cylinder oil, owing to its high fire test (from 550 to 600) becomes thin and limpid without burning, and flows freely between the close-fitting surfaces, keeps them apart, and at the same time absorbs the heat that would otherwise have gone into the metal and carried away, while the engine oil, being of lower flash test vaporized, and if the bearing got hot enough, caught fire.

The theory of a heating bearing is as follows: If for any reason the oil is prevented from reaching every part of a bearing, the surfaces will come in direct metallic contact, excessive friction is set up and heat is generated. If the pressure be not great and the

bearings are ample, the heat may be absorbed by the metal and radiated out into the air, and nothing serious occurs. But if the pressure is heavy and the speed high, the heat may be generated faster than the metal can carry it away, the original dry spot may not have been over one-fourth of a square inch in area, but sufficient heat may have been generated at this point to cause the adjacent oil to evaporate and shrink away, thus increasing surfaces to fit tighter, and thus creating more friction until the temperature reaches such a point that it ignites and burns. As a good engine oil will have a flash test of about 400° the temperature of the metal must rise above that in order to ignite the oil.—W. M. Davis in the Petroleum Review and Mining News.

### Progress in Kern River.

Honorable C. A. Barlow is now gathering statistics of the Kern River district for his new map and spent yesterday at the field, traversing sections 3, 4 and 5, 29-28 and 33 and 32, 28-28, says the Bakersfield Californian.

In regard to the conditions as he observed them at the field Mr. Barlow said:

"The field is now more active than at any time in the past two years. Drilling operations are going on everywhere, wells are being pumped and oil shipped, while new rigs are being erected all over the field. Everything indicates the greatest prosperity in the industry.

"A noticeable fact now is that the various companies have abandoned the former practice, once prevalent, of drilling at any point on their properties and are now placing their wells in a more systematic way. A common practice now is to drill wells in a string along the edge of the property. Whenever this is done it may be observed that the operators of the adjoining property invariably follow the same plan if their neighbors are successful. In this way better results seem to be obtained than when operations were scattered in a more haphazard manner."

The statistics gathered by Mr. Barlow at the field show the following condition on properties visited by him and located upon the sections above named:

On 4, 28-28 the Nob Hill has thirty-six wells completed, the Apollo fourteen finished and one drilling, the Central Point thirty-one complete and three drilling, the Red Bank thirteen complete and three drilling, the Petroleum Development company, eleven complete and one drilling rig, the Revenue eleven complete.

On 3, 29-28 the Southern Pacific has fifty-one wells complete.

On 5, 29-28 the Del Rey has five wells, one of which has just been completed.

On 33, 28-28 the Thirty-three company has thirty-one wells complete and the Imperial twenty-three.

On 32, 28-28 the West Shore has eleven wells complete and one drilling rig.

All of these companies have still room left for a number of wells in addition to those drilled or being drilled at the present time, allowing a full acre for each well as is the custom.

### The Land Department.

The oil land department will hereafter be conducted entirely separate from any connection with this paper. The manager of the department has succeeded to full ownership and control of the business and will hereafter conduct it in his own name and solely on his own account. Attention is called to the change in the advertisement.



## THE LATEST OIL NEWS.

### Recent Developments Which Have Made Oil One of the Greatest Industries in the Far West.

#### Colusa.

The Chehalis, No. 3, is down 125 feet. Two shifts.

The casing has been landed in the Williams No. 2 and another sand penetrated. The hole is down 790 feet.

Boring for oil in Colusa: Chehalis Oil company, Williams Oil company, Bear Creek Oil company. Suspended: Colusa Consolidated Oil and Refining company.

#### Devil's Den.

The Devil's Den Consolidated Oil company, a Visalia corporation, has just levied an assessment of 1 cent per share to carry on development work on its property in the Devil's Den district, where extensive exploiting is going on. This is the tenth assessment and was levied at the meeting of the directors held in Visalia the 19th inst. It becomes delinquent on November 23rd and unless paid by December 14th the stock will be sold.

#### Kern.

The Webfoot Oil company is awaiting the arrival of casing to resume operations.

J. B. Hudson is down from Paleta to look after a new haypress which arrived for him on to-day's train.

L. C. Wise of the Construction Department brought out a gang of workmen Saturday. They are engaged in repairing the road and putting in a short switch to accommodate the Lion Oil company and others.

The Maricopa No. 2, the "show" well of the West Side fields, is keeping up its reputation and if any further delays occur to impede the laying of the pipe-line or the extension of the railroad, the company will be forced to provide more storage room.

There are now quite a number of refineries completed or in construction at the field. Several others are also said to be projected. Among those completed or in process of construction are the Union, Eastern Consolidated, Southwestern, and Clark.

The Neptune Development company has sold and assigned to the Associated Oil company an agreement whereby T. P. Spiers agreed to develop water on the southwest quarter of section 30, 30-22 and right-of-way for pipe line, also personal property and pipe line appurtenant.

The California-Kern to-day broke ground for its new refinery at Kern River. The plant will be located on the property leased from the Grace on 8, 29-28, adjoining the Petroleum Development and the Junction. The property has several completed wells and the company is pushing development work.

Work is being resumed this morning on the Arcata, section 31, 32-24. They were down in the neighborhood of 1,700 feet with 4½ casing, which has been removed. They are now loosening the string of 6-inch drive which J. Waltman, the driller, is confident he can carry to the depth attained when using the 4½.

The Hawkeye State Oil company has leased to the Associated Oil company all interest in the south half of west half of northwest quarter of southeast quarter of section 30, 28-28, obtained from the Toltec Oil company and sub-leased to the Irma Oil company, and the west half of northwest quarter of southeast quarter of section 30, 28-28, leased from the Toltec Oil company.

At noon Thursday fire completely destroyed the drilling rig and the engine and belt house at the Perseus property on 29, 28-28. The blaze was caused by the saddle iron becoming hot and setting fire to the jack post, from which the flames spread and enveloped the entire rig. All the wood work around the rig and engine and belting house was destroyed. The iron work and machinery was mostly saved.

F. E. Mannell has returned from San Francisco and will shortly resume work on the Mountain Boy tract, section 22, 32-23, Midway district. A well was completed on this property several months ago, proving the territory valuable for its petroleum wealth. The company has decided to resume development operations and will drill at least two more wells. Mr. Mannell predicts that there will be considerable new work performed in the Midway field during the present winter season.

The stockholders of the Elk Horn Consolidated Oil company have received notification of the first meeting to be held in San Francisco this week. This is a combination of many interests, being composed of several former sub-companies of the Occidental, and should prove a strong organization, for it holds several valuable tracts of land and already has made one lease to the Dayton, an Eastern company that has recently secured a fine well on this land in section 9, up in Midway.

The Monarch, at Sunset, is rigging up its rig No. 5 and expects to be ready to spud in in a few days. Preparations are being made for considerable development work in the neighborhood of the Monarch and Occidental, and now that the pipe line is positively assured and the railroad only temporarily delayed to secure two more rights of way, there seems to be nothing in the way of the long-looked-for boom in the west side fields. Land values are advancing, producers holding for the higher prices that are inevitable, and everything in general is picking up.

The Sedalia and California Oil company, close to the depot, on section 18, Sunset, has put in packers in three wells and is cutting and removing the casing in the fourth, preparatory to using the packer. They expect to place this economical pumping device in all their wells, for it is working very successfully, and when producers in general realize that the cost of installing these packers is as nothing compared with the expense attendant upon pumping with the usual method in vogue at present, and that the operating expenses while using the packers are so small in comparison, for they are practically automatic, this plan is sure to be adopted by many of the producing companies in this field, as is already being done in other localities.

According to reports from the Sunset field the Monarch Oil company is preparing for considerable new development work. Two strings of tools are now in operation, but in order to perform the new work mapped out additional equipment was found necessary so the company has, according to report, ordered the machinery for five new rigs. The heavy stockholders in this corporation anticipate the early completion of the extension of the Sunset railway and are preparing to make extensive shipments of oil as soon as the road is finished to the vicinity of Maricopa. The delay in the commencement of work on the

extension is due to the failure to secure a complete right of way for the balance of the road. The necessary signatures will be secured, however, and work will be in progress at an early date.—Echo.

Within the next thirty days the Illinois Crude may finish entirely the development of its land at the Kern River field. The property comprises ten acres and the tenth well will shortly be drilled, which is considered to be the probable limit of work. The property is one of the best of its size in the field, one of the wells having produced \$15,000 worth of oil in one year, and this too with the price of about 25 cents or less. The completion of development work on the land does not mean that the company is to lose ground in consequence, as the wells now completed are producing as much as ever and the property is a very valuable one. If the policy of the Texas fields were followed here there would be room for many more wells but this has not proved at all beneficial to the industry at Spindletop and Sour Lake, where one-sixteenth of an acre has been considered enough to start a company on. The policy of all companies in California has been quite the reverse of this, hence the limit of development is reached sooner.

#### Santa Barbara.

The Elliott company, operating in Cat canyon, is getting down in much better shape than in the first hole started. The company is working with a rotary.

Drilling on the new Union company well continues uninterrupted, and the drillers are down several hundred feet. Work on the pipe-line is progressing very satisfactorily.

The Lompoc company has not as yet recovered the tools lost a few weeks ago. It is expected the obstruction will be removed within a few days and then operations will be resumed.

The Brookshire company has com-

pleted its new derrick for well No. 2, and will begin drilling next week. At present a force of men are employed laying a water pipe from well No. 1 to No. 2 to supply the necessary water.

The California Coast company, in which Captain Matson and other San Francisco oil men are interested, has begun drilling on the Drumm property, and is making good headway. L. A. Crandall has the work in charge, and has one of the best rigs in the country.

On the Pinal tract the usual activity continues. Well No. 1 is being deepened, and at intervals throws out considerable oil when least desirable. Nos. 2 and 5 continue to flow, and keep the Graciosa tank filled to the top. No. 4 has not come in yet, but is expected to do so at almost any minute. On account of the strong flow of gas the bunk houses, and also the office buildings, had to be moved to a higher elevation.

Work on the Union Oil company's pipe-line from the wells south of town to Graciosa station is progressing very rapidly. For the greater part of the distance the trench has been made and the pipe is on the ground, ready to be laid. The pipe-line from Careaga, where the oil is pumped across the divide on the Lompoc side, is also progressing and for a distance of six or seven miles the pipe is lying alongside of the county road waiting to be put into place. Work on the big tank is going ahead as fast as possible, something like forty men being employed riveting the big steel plates together which will constitute one of the largest tanks in this part of the state. The pipe-line, which will carry the oil from the Lompoc field to Graciosa, is four inches in diameter and will follow the county road all the way to where the new tank is now being erected. From Graciosa the line will go through the Todas Santos rancho west and north along the old Point Sal

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and Casimira roads to the ocean.—Santa Maria Times.

#### Kings County.

Worswick brothers, who recently established an asphaltum plant at Hanford where they have been doing a good business in pavements and street work, will remove their plant to Visalia, the numerous orders from the latter place seeming to justify the move.

#### Whittier.

The Whittier-Fillmore Oil company has the derrick up and is rigging No. 2, and expects to soon begin drilling. This is one of the grittiest companies in the local field, and this, in itself, is a strong reason for wishing them abundant success.

#### Wyoming.

The American Consolidated have their No. 2 well on section 23 down about 800 feet, No. 3 about 500 feet, same company on section 15, No. 1 well 200 feet, the Standard Reserve on section 12 down about 200 feet deep.

R. G. Ellis, president of the Atlantic & Pacific Oil company, arrived in the city Thursday, from California. He comes to give instructions on winter work, and to select sites for more wells in the early spring. He is well pleased with the progress being made by his company.

The Atlantic & Pacific Oil company are going down deeper with their well on section 26, 15-117, not getting satisfactory results from the first or second sand. It is probable that all of their wells will be drilled deeper as it is understood they are not doing as well as was anticipated.

A. B. Butler came in from California Wednesday evening to look over his interests in our oil fields. He says that his company are perfectly satisfied with the progress being made on their wells and says that if the production will warrant it, his company will erect an oil refinery next summer. So mote it be.

Acocks brothers, who have been putting down a hole with a portable rig on section 14, 14-118 just west of the old railway cut at Hilliard, struck a fair showing of oil and considerable gas at a depth of 18 feet. It is thought that by going back from the outcrop further wells will be brought in and considerable excitement is manifested at this discovery.

Attorney J. C. Hamm received word this week from Humboldt, Kansas, to the effect that the Wyoming-Kansas Oil company, in which he is heavily interested, had struck a fine flow of oil. This concern is also heavily interested in the Uinta county fields, having some choice holdings near Medicine Butte. They intend doing development work here next year.

The Traverse Bay Oil company, a Michigan corporation, has filed its articles with the county clerk. The company is incorporated for 230,000 shares of a par value of \$1. The trustees for the first year are: James G. Johnson, Ernest B. Minor, Clinton L. Dayton, German H. Cordes, Moses Rich, Judson Cameron and James M. Gillett. The company will operate near Aspen next spring.

One night last week unknown parties visited the property of the Michigan-Wyoming Oil company and stole a new set of jars, a box of bolts, taps and dies, two Stilson wrenches, a monkey wrench, and some other material. The stuff was under attachment and it behove the sheriff to "get busy" with the result that we now understand a part of the stuff has been located and it is probable that certain parties who have use for these things will be implicated. The only thing we wonder at is that they didn't steal the whole company.

### Maintaining Good Roads.

The subject of making and keeping good roads has occupied the attention of every land and all peoples more or less. The condition of the roads and streets often-time is a good index to the character and habits of a people.

For years this city has been working at its roads until now we may be said to have the best streets of any town of like proportion in the state, where similar conditions have to be overcome. Yet we are somewhat behind what is desirable in every regard along the line of keeping in good condition what we have prepared with so much care and cost. A step in the right direction has been taken in many "chuck" holes, that is, by the use of oiled dirt. The manner of applying the dirt to the holes is not wholly a success as the outer edges of the holes are not prepared to keep the loose earth applied in place, but experience will bring about the best method for that. The "road plane" has been used with good effect and should be kept going all the time, as it not only levels the roads, but it mixes well the dirt and oil so that the oil is quite evenly distributed.

The advent of applying oiled dirt to the little holes in the streets brings up a matter adverted to heretofore, but not dwelt on to any extent. The cost of the oiled dirt is considerable and some cheaper method is desirable. It has been suggested that as there are unnumbered tons of oiled sand at the oil fields, which can be had for the getting, that the matter of securing what is necessary for use in repairing roads should be looked into carefully, comparing the cost of bringing it to the city with the cost of oil used to prepare the oiled dirt with which our streets are now being kept in good shape.

Much money has been used to get our present good roads and the citizens take a just pride in what we have, but constant repairing is necessary. The best and most economical method of accomplishing this will be found out and used. The motto of those entrusted with the making and maintenance of good roads and streets should be the best streets in the state and the best maintained streets, too.—Bakersfield Echo.

#### A Waning Field.

Spindle Top is no longer a name to conjure riches with. Hundreds of rigs are rusting to decay, and every day four or five cars of machinery and rig timbers are shipped out of the field. According to the Beaumont Oil Investors' Journal, there are only 125 wells that are now being operated, and the total production is about 15,000 barrels a day. Of this amount, the J. M. Guffey company is pro-

ducing more than one-half. Down in the Hogg-Swayne tract where formerly there were 300 derricks and probably 250 rigs, there are just 12 rigs going, 11 standards and 1 steam head. This entire tract, with its hundreds of wells, is not producing as much oil today as the neighboring Heywood tract of 15 acres, with 10 wells in operation.

Over in the once productive Keith-Ward sub-division, there are 27 wells operating—about one in five. In the Yellow Pine tract, 18 wells are being worked—about the same proportion as in the Keith-Ward. In block 21, the Gober, 10 wells are pumping. In block 5 of the Gladys City sub-division, where is located the well that T. C. Stribling sold for \$40,000, two wells were pumping on October 16th.

The Guffey company operates 25 wells, but they are remote from the forest of derricks, where the wells were once crowded so thickly that a man could step from one to another. Their production for this reason has held up better than from those located in the crowded sections of the field.

#### Yosemite Map, New Edition.

A new edition of the map of Yosemite quadrangle, California, has recently been issued by the

United States Geographical Survey. This quadrangle contains the Yosemite National Park, which in turn contains the Yosemite Valley, with its wonderful canyon, falls and scenery. On this map falls also a part of the Sierra Forest Reserve, which includes the Big Tree Grant, of which a special survey has been made. The area covered by the map is 944 square miles, its characteristic features being large meadows and flats; it is dotted with mountain peaks, some of which rise to an altitude of 8,000 feet above sea level. This quadrangle was surveyed in 1893, before the present system of spirit leveling had been adopted, and therefore it contains no permanently marked points, such as are shown on the maps that are being made at the present time.

#### The Baku Field.

The 214 wells completed in the Baku, Russia, oil field, last year, show an average depth of 1,302 feet, and an average initial production of 292 barrels per well per day, against an average depth of 1,086 feet, and an average production per well per day of 330 barrels for the 358 wells completed in 1901, indicating a very material increase in the depth of drilling and a not inconsiderable falling off in the average productivity of the wells.

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**Eastern Oil Prices.**

The closing bid for Pennsylvania oil on the oil exchange yesterday was \$1.80 cents a barrel. This means that if you had a certificate for 1,000 barrels of oil you could sell it for \$1.80 a barrel, instead of \$1.71, the price which the Standard Oil company is paying. It is generally conceded now the supply of high-grade oil is so low that it is possible for almost any ordinary capitalist and speculator to corner the market. The surplus of Pennsylvania oil is now less than 2,000,000 barrels. Everything indicates a big rise in the price. If the Standard Oil company reduces its prices the speculators will gladly buy all the oil they can get at the prices named on the exchange. We predict \$2 oil at least and would not be surprised if it went away above that mark. It is really worth more money but has always been so plentiful the Standard could do as it pleases but that day is past. There is going to be a mighty boom in oil before there is a decrease in the price of oil. Winter is nearly here, roads will be bad, operations will be retarded by cold and bad weather, new operations will be discontinued on account of bad weather and the production materially lessened while the long winter nights will cause a great increased demand for refined oil. It begins to look as if the day had about come to an end when the Standard Oil company could dictate the prices of both the crude and refined oil. It would not be a great undertaking at all now to purchase every barrel of oil there is above ground, in

other words to corner the market. You may expect some exciting news in the oil business soon. Just hold your oil. If the price is cut a few cents, just hang on and say nothing. This morning the price of oil was advanced by the Standard to \$1.71 a barrel. We may expect more good news next week. In fact, we expect some very sensational advances in a few days.—Sistersville Oil Review.

**The Price of Texas Oil.**

The price of oil still shows a tendency to slump, says the latest Beaumont special. Sales are few and for small amounts. Major E. C. Ogden, representing the Landry Oil company, sold 20,000 barrels of Sour Lake crude at 35 cents. There are negotiations on foot for some large deals in one of which a railroad company is to be the purchaser, but if the deals have been closed no information is obtainable in regard to them. Texas company still maintains its quotations.

The only real feature, or rather absence of feature, in the oil situation just now is the dullness and quiescence of the market.

With the completion of the Security Oil company's pipe line from Sour Lake, which will relieve the congested condition there, and the establishment of the big refining plant of the United Oil and Refining company, at Spindletop, the construction of which, as previously announced, is shortly to begin, it is believed that the tone of the market will be steadied and prices again sent upward.

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## OIL LAND DEPARTMENT

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Having succeeded to the sole ownership and control of the oil land department of the PACIFIC OIL REPORTER, I desire to inform the patrons of the department and the public generally that I will continue the business in my own name and solely upon my own responsibility, having my office as before with the paper.

I desire to say that the success of this department has been far beyond my expectations, notwithstanding the adverse circumstances attending its establishment. The increase in the business of the department has necessitated the change in control and management and hereafter I will give my entire attention to it, other hands assuming the control of the paper.

Strange as it may seem, I have more customers than properties to offer. I have refused to list more than 10,000 acres of land in the past two months for the very reason that I will not, under any conditions, handle anything except the **very best**. Every proposition that I offer is **absolutely gilt-edged** and will stand **any kind of expert examination**. This explains why I am long on customers and short on offerings. If you have anything that is genuinely good, I will be pleased to list it.

U. M. THOMAS,

318 Pine Street,

San Francisco.



## A Tough Witness.

The lawyer for the defendant was trying to cross-examine a Swede who had been subpoenaed by the other side as a witness in an accident case.

"Now, Anderson, what do you do?" asked the lawyer.

"Thank you, but Aw am not vera well?"

"I didn't ask you how is your health, but what do you do?"

"Oh yas. Aw vewrk."

"We know that, but what kind of work do you do?"

"Putty hard vewrk; it ees putty hard vewrk."

"Yes, but do you drive a team, or do you work on a railroad, or do you handle a machine, or work in a factory?"

"Oh yas; Aw vewrk in a factory?"

"Very good. What kind of a factory?"

"It ees very big fact'ry."

"Your Honor," said the lawyer, addressing the Court, "if this keeps on, I think we'll have to have an interpreter." Then he returned to the witness.

"Look here Anderson, what do you do in that factory—what do you make?" he asked.

"Oh yas, Aw un'erstan—you want to know vat Aw make in fact'ry, eh?"

"Exactly. Now tell us what you make."

"Von dollar an' a half a day."

And the interpreter was called in to earn his salt.—New York Times.

## California Stock and Oil Exchange.

The following were the stock sales in the California Stock and Oil Exchange in the formal sessions held for the week ending Wednesday, October 28th:

CALIFORNIA STANDARD.			
450 at	10.....	\$	45 00
ESPERANZA.			
200 at	1 45.....		290 00
200 at	1 50.....		300 00
FULTON.			
100 at	3 85.....		385 00
HANFORD.			
4 at	132 00.....		528 00
4 at	130 00.....		520 00
HOME OIL.			
1,700 at	90.....		1,530 00
300 at	90 (S 30).....		270 00
100 at	90 (S 90).....		90 00
200 at	87½ (S 30).....		175 00
100 at	87½ (S 60).....		87 50
100 at	87½ (S 90).....		87 50
100 at	95 (S 90).....		95 00
100 at	95.....		95 00
JUNCTION.			
1,000 at	19.....		190 00
KERN RIVER OIL.			
10 at	12 00.....		120 00
LION.			
2,000 at	04.....		80 00
MONARCH.			
300 at	50.....		150 00
OCCIDENTAL OIL.			
900 at	18.....		162 00
1,300 at	19.....		247 00
500 at	17.....		85 00
SOVEREIGN.			
500 at	39.....		195 00
300 at	38.....		114 00
STERLING.			
50 at	2 85.....		142 50
400 at	2 75.....		1,100 00
SUPERIOR.			
4,651 at	06.....		279 06
TOLTEC.			
15,00 at	21.....		315 00
17,069 Shares	Amount	\$7,677.56	
NORTH SHORE R. R. CO.			
100 at	7 00.....		700 00
100 Shares	Amount,	\$700.00	
The monthly record of sales since January 1, 1903, is as follows:			
Shares. Value.			
January.....	267,019	\$255,202	
February.....	322,443	219,358	

March.....	199,908	151,982
April.....	236,268	115,571
May.....	401,454	154,386
June.....	154,720	117,928
July.....	74,594	71,890
August.....	181,478	119,231
September.....	146,123	74,455

## Stock Quotations.

Following are the latest quotations for stocks of oil companies listed on the California Stock and Oil Exchange:

Oil Stocks.	Bid.	Asked.
Alma.....		1.35
Apollo.....	.42	
Asso. Oil Co Stk. Tr.		
Certificates.		
Aztec.....		
Bay City.....		
Bear Flag.....		
California Standard....	.10	.11
Caribou.....		1.10
Central Point Con.....		.75
Chicago Crude.....	.19	.20
Clairemont.....	.24	
Esperanza.....		
Fauna.....		
Four.....		.69
Fulton.....		
Giant.....		
Hanford.....	134.00	
Home.....	.95	.97½
Homestake.....		
Imperial.....		
Independence.....	.18	.19
Junction.....		
Kern.....		
Kern River.....		
Lion.....		.04
Monarch of Arizona....	.49	.50
Maricopa.....		
McKittrick.....		.30
Monte Cristo.....	.75	
Nevada.....		.45
Occidental of West Va	.17	.18
Oil City Petroleum....	.25	.28
Peerless.....	13.50	
Petroleum Center.....		
Piedmont.....		
Pittsburg.....		.16
Reed Crude.....	.41	
S. F. & McKittrick....	2.75	
San Joaquin O. & D.....		
Senator.....		
Shamrock.....		
Sovereign.....	.35	
Sterling.....	2.60	2.75
Superior.....		
Thirty-three.....	7.00	7.50
Toltec.....	.20	.22
Twenty-eight.....		
Union.....		
United Petroleum.....		
West Shore.....		
Western Petroleum.....		
Wolverine.....		.50

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9:30 A. M.—\*THE CALIFORNIA LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m., Kansas City 3rd day 2:35 a. m., Chicago 3rd day 2:15 p. m. Palace Sleepers and Dining Car through to Chicago. No second class tickets honored on this train. Corresponding train arrives 9:10 p. m.

9:30 A. M.—\*VALLEY LIMITED; Due Stockton 12:01 p. m., Fresno 3:20 p. m., Bakersfield 6:00 p. m. The fastest train in the Valley. Carries Composite and Reclining Chair Car. No second class tickets honored on this train. Corresponding train arrives 11:10 p. m.

4:00 P. M.—\*STOCKTON LOCAL; Due Stockton 7:10 p. m. Corresponding train arrives 11:10 a. m.

8:00 P. M.—\*OVERLAND EXPRESS; Due Stockton 11:15 p. m., Fresno 3:15 a. m., Bakersfield 7:35 a. m., Kansas City 4th day 7:00 a. m., Chicago 4th day 8:47 p. m. Palace and Tourist Sleepers and free Reclining Chair Cars through to Chicago. Also Palace Sleeper which cuts out at Fresno. Corresponding train arrives 6:25 p. m.

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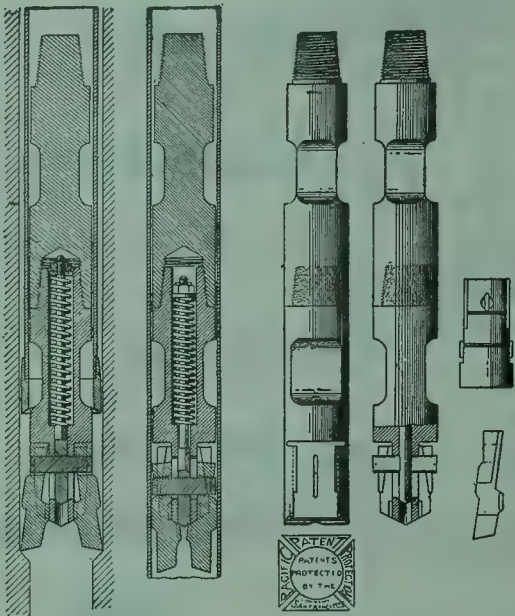
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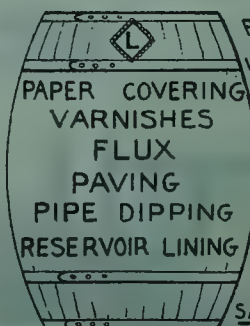
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